

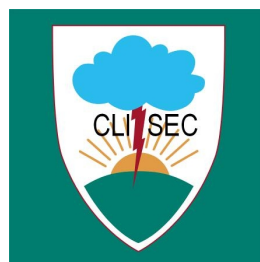


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*Each institutionalization elementary
is a self-reinforcing process
increasing path dependency*

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Working Paper
CLISEC-4



Abstract

Institutionalism and the concept of path dependency are neighbored theories. Thus in empirical research it is necessary to know which of the two theories is applicable. In this paper it is proven in a mathematical way that whenever institutionalism can be used also the concept of path dependency can be applied. Based on Berger and Luckmann's theory of primary and secondary socialization and Giddens' theory of the duality of structure it is shown that each institutionalization elementary is a self-reinforcing process increasing path dependency. As a corollary a theoretical basis is provided for 'intertheoretical' work, using the presented linkage between institutionalism and path dependency theory, as well as for a multi-level approach using path dependency theory.

Keywords: institutionalism, path dependency theory, multi-level approach, socialization, duality of structure, linkage between theories

Each Institutionalization Elementary is a
Self-Reinforcing Process Increasing Path Dependency

One of the main problems, when trying to apply path dependency theory in empirical research, is the question whether a process indeed is path dependent or not.¹ So a typification of the real process is needed and a theoretical background is necessary to fit the empirical situation in a theoretical concept. Two neighbored theories are institutionalism and the concept of path dependency. Thus to cluster empirical monitored processes it might be necessary to distinguish, whether a process is an institutionalization and thus institutionalism should be used, or it is path dependent and thus the concept of path dependency can be applied.

In this paper it will be shown that each institutionalization elementary is a self-reinforcing process which includes that whenever institutionalism can be used, also the concept of path dependency can be applied. For proving this statement first a definition of 'path dependency' will be extracted from literature. While some general understandings more concentrate on the aspect of path dependency that 'history matters' more specific applications and embeddings in organizational theory use the definition of a path dependent process being a 'self-reinforcing process with the potential for a lock-in'. The latter definition opens up a linkage to institutionalism, because a lock-in is comparable to the situation of an institution which changes only incrementally at the most (North, 1990). Different from other authors who combine path dependency and institutionalism (as e.g. Pierson, 2000; Alexander, 2001) in this paper a more process oriented definition of institution will be used: Each institution is the outcome of a process of institutionalization. This definition allows focusing on the institutionalization part of the theory. Considering the process of institutionalization there at least must be one actor who supports the process of institutionalization which means that at least a pre-version of the later

institution already exists in his subjective reality. So this is how the ‘elementary’ view on the process of institutionalization is defined.

Before proving the statement that each institutionalization elementary is a self-reinforcing process the necessary theories will be extracted from literature. This means especially the concept of primary and secondary socialization (Berger & Luckmann, 1979) and the statement of the duality of structure (Giddens, 1984).² Afterwards the proof will be presented and in the end a more dynamic understanding of path dependency suggested to expand the applicability of path dependency theory and combine institutionalism and the concept of path dependency in a consistent theoretical frame.

Definitions of Path Dependency and Institutions

Path Dependency

For explaining the causal logic between path dependency and self-reinforcing processes which are a main part of the statement that is proved later (‘each institutionalization elementary is a self-reinforcing process’) and for understanding the implications that result from this statement first the concept of path dependency will be presented.

The Story of QWERTY, an Example of the Phenomenon of Path Dependency

Although Liebowitz and Margolis (1995) still argue the QWERTY-keyboard to not be an example of the phenomenon of path dependency, it is strongly associated with David’s and Arthur’s work on whom the path dependency notation goes back as used in the social sciences (cf. e.g. Beyer, 2005; Mahoney, 2000; Page, 2006; Sydow, Schreyögg, & Koch, 2005; 2009). Arthur and David criticize the efficiency fundamentals of neoclassical economics and point out

that on a market not necessarily the most efficient technology wins. While Arthur focuses in his formalizations on positive feedback processes of increasing returns and shows that they can lead to suboptimal technologies dominating the market (Arthur, 1989; 1994), David more provides examples through historical research (David, 1985; 2000; 2007). One especially famous example is the QWERTY-keyboard. The notation of the special keyboard is due to its topmost row of letters 'QWERTYUIOP' which starts with the named letters.

In his historical research on the development of the typewriter David points out, the keys have been placed in that special way, because in early times of the production line salesmen were considered to write the brand name, called 'Type Writer', especially quickly if all its letters were placed in the topmost row (David, 1985). Thus although in those former times the QWERTY-keyboard was designed to somehow meet the preferences of former decision-makers their reasons might have passed away in the meantime, but the QWERTY-keyboard still dominates the keyboard market, even where there are no longer type bars which need to be prevented from clashing or jamming, different brand names and no salesmen with the necessity to especially quickly type 'type writer'. And if considering a smartphone, there might not even be 'keys' left, but the displays still show the same QWERTY-keyboard positioning of letters going back on a patent from 1873.

The agents engaged in production and purchase decisions in today's keyboard market are not the prisoners of custom, conspiracy, or state control. But while they are, as we now say, perfectly "free to choose," their behavior, nevertheless, is held fast in the grip of events long forgotten and shaped by circumstances in which neither they nor their interests figured. (David, 1985, p.333)

While the broader understanding describes path dependency as ‘history matters’ a narrower analysis focuses on self-reinforcing processes stabilizing paths.

Path Dependency in Narrower Understanding as Consisting of a ‘Self-Reinforcing Process’

Using the example of the QWERTY-keyboard David bases the lock-in of the path on the quasi irreversibility of investments (David, 1985): While it would be easy for the production company to change the positioning of keys, customers have to rely on their employers’ typing qualities whose practice in typing on the QWERTY-keyboard can be described as quasi irreversible investments. So the more the QWERTY-keyboard is sold and used in practice the more employers would learn to type on them and the more future companies will also prefer to buy QWERTY-keyboards for their employees. The more QWERTY-keyboards are already used the more they will be asked for and used in future.

Arthur formalizes this causality as a self-reinforcing process³. In the example of the QWERTY-keyboard the ‘self’ which gets ‘reinforced’ is e.g. ‘number of people preferring the QWERTY-keyboard’ instead of a potential alternative: Whenever the QWERTY-keyboard is preferred it reinforces even more people to also prefer it in the next step which again reinforces even more people to prefer it in the step thereafter and so on.

Arthur states in his economic approach for trying to predict, which technology might win on a market, the following four aspects as reasons for or fundamental components of self-reinforcing processes (cf. Arthur, 1994, p. 112):

- Large set-up or fixed costs give the advantage of falling unit costs to increased output.
- Learning effects act to improve products or lower their cost as their prevalence increases.

- Coordination effects confer advantages to “going along” with other economic agents taking similar action.
- And expectations act self-reinforcing where increased prevalence on the market enhances beliefs of further prevalence.

Thus also the different reasons for path dependency which David described within the example of QWERTY can be declared as different mechanisms causing and enhancing a self-reinforcing process which can be used as a main argument for existing path dependency.⁴

Institutions

Now having an idea of self-reinforcing processes and the role they play in the concept of path dependency, for approaching the later proved statement (‘each institutionalization elementary is a self-reinforcing process’) it is necessary to define what understanding of an institution and thus what concept of an institutionalization it will be based on.

Notations of Institutions when Debated in Combination with the Concept of Path Dependency

There are different authors who combine institutionalism and the concept of path dependency in different fields of science.

Institutions as rules of the game.

For example in the context of economics North uses the (neoclassical economics) notation of an institution as ‘rules of the game’ (or ‘solution to a problem’) and differentiates it from individuals or organizations who are the players of the game (North, 1990; 2005). He combines it with the concept of path dependency when he describes how institutions might be

changed and that they can only be changed incrementally when actors of same interests build organizations to reach their goal of changing an institution (thus getting organized in an interest group for as to their interest changing a rule of the game they play).

Political institutions in political science.

In political science Pierson states that ‘every institution is path dependent’ and uses this link for transferring the concept of path dependency to the usual institutional theory in political science (Pierson, 2000). But Alexander (2001) argues that “formal political institutions are not, as a general category, path dependent” (p. 253). For not stretching the concept of path dependency too much, Alexander (2001) uses the notation of path dependency for “patterns of cost and benefits such that rational actors prefer to maintain the status quo even if an alternative might provide higher aggregate returns in the long run” (p. 254). In that context he uses an economic interpretation of a possibly path dependent situation referring to ‘rational actors’ who make decisions based on their preference structure weighting transition costs and argues that this (economic) concept can not be applied to every formal political institution, because it can be shown that political actors do not always decide totally rational as to economic definitions.

Discussion: the process of the institutionalization has been left out.

What these arguments have in common, besides using an economic understanding of path dependency, is that they all concentrate on the ‘institution’ trying to figure out whether it is path dependent or not.⁵ Thus they try to figure out whether an institution can be described as a ‘lock-in’ and therefore the concept of path dependency can be applied. The process that led to the

supposed 'lock-in' in the referred texts mainly is left out. For this paper a more process oriented view is taken: Each institution is the outcome of a process of institutionalization.⁶

The process of institutionalization.

It is more relevant for the later proof to look for a combination of path dependency and 'institutionalization' (instead of path dependency and institution). In the context of organizational studies Tolbert and Zucker (1996) present a description of the process of institutionalization. Their approach is neatly based on Berger and Luckmann's constructivist theory. But different from Giddens' theory which is also based on Berger and Luckmann's approach, Zucker assumes highly institutionalized social structure to be objective and exterior to actors instead of the internal and external perspective Giddens uses (Zucker, 1977; Giddens, 1984).

A much more adequate explanation can be found in the ethnomethodological approach to institutionalization, defining acts which are both objective (potentially repeatable by other actors without changing the meaning) and exterior (intersubjectively defined so that they can be viewed as part of external reality) as highly institutionalized. (Zucker, 1977, p.726)

Theoretical positioning of the notation of institutionalization used for the later proof.

Since Zucker's process oriented approach contradicts with Giddens' theory but the latter one is necessary for the later proof where Giddens' theorem of the duality of structure will be used, the origin of both needs to be included in the theoretical embedding and a process oriented approach created from that origin allowing applying Giddens' theorem.

Therefore to create a basis for the later proof where an approach to institutionalization as well as Giddens' theory of the duality of structure is needed, first essentials from Berger and Luckmann's theory will be presented. The later argumentation thus will be entirely based on Berger and Luckmann's theory as the following chapters will show. Abstracting from the field of science the concept of path dependency or institutionalization is applied to, it can be stated that for each institutionalization there exists at least one actor who starts this process of institutionalization and keeps it up. If there is no actor who supports the institutionalization in its process (deliberately, mindfully or unconscious) it would stop or would not start at all.

Considering this creating actor in his relation to the institution which begins to exist in describing the process of institutionalization thus is an 'elementary' view of institutionalization because it can be applied to every single actor who supports the process of institutionalization.

Socialization and the Duality of Structure

Habitualization, Primary and Secondary Socialization

Preparing theoretic parts for later conclusions, elements of Peter Berger's and Thomas Luckmann's theory presented in 'The Social Construction of Reality – A Treatise in the Sociology of Knowledge' will be used (Berger & Luckmann, 1979). Because of their description of primary and secondary socialization in an applied way about society as a whole and questions of knowledge, a transfer will be necessary for applying it to institutions and the process of institutionalization.

Habitualization

To reach a better understanding of Berger and Luckmann's theory and making sure that it matches with the different theories used in the proof later first the central aspect of habitualization will be extracted and thus the theoretical basis presented.

Institutionalization.

Berger and Luckmann (1979) introduce institutionalization in the beginning of the book as one difference between human and animal.

...All non-human animals, as species and as individuals, live in closed worlds whose structures are predetermined by the biological equipment of the several animal species. By contrast, man's relationship ... to the surrounding environment is everywhere very imperfectly structured by his own biological constitution. (p. 65)

These less biological predetermined structures allow human beings to succeed in establishing themselves on all continents, different climate zones and each surrounding environment. The peculiarity of man's biological constitution allows not only adaptability to natural environmental aspects but also gives chance for a great variety of activities: "This means that the human organism is capable of applying its constitutionally given equipment to a very wide and, in addition, constantly variable and varying range of activities." (Berger & Luckmann, 1979, pp. 65)

These activities can be related to environmental aspects or other human beings and can differ from human to human, because it is not predetermined in detail by human's biology.

Humanness is socio-culturally variable. In other words, there is no human nature in the sense of a biologically fixed substratum determining the variability of socio-cultural

formations. ... While it is possible to say that man has a nature, it is more significant to say that man constructs his own nature, or more simply, that man produces himself.

(Berger & Luckmann, 1979, p. 67)

Thus the human nature allows human beings to construct their own environment not only in material but also in socio-cultural aspects. But although the human organism has the opportunity to construct its own surroundings as to its biology, the way for doing so is formed by the process of “developing biological while already standing in a relationship to its environment” (Berger & Luckmann, 1979, p. 66). So the process of constructing an own nature takes place in relationship to existing structures.

But how can ‘the process of constructing its own nature’ be described and what do social structures consist of?

Berger and Luckmann (1979) derive from analyzing the biological and developmental aspects of human organisms the centrality of habituation in the process of humans constructing their own nature:

All human activity is subject to habituation. Any action that is repeated frequently becomes cast into a pattern, which can then be reproduced with an economy of effort and which, ipso facto, is apprehended by its performer as that pattern. Habituation further implies that the action in question may be performed again in the future in the same manner and with the same economical effort. This is true of non-social as well as of social activity. ... These processes of habituation precede any institutionalization

(pp. 70)

So institutions are the outcome of processes of institutionalization which is preceded by processes of habitualization. Berger and Luckmann state that empirically, the more important part of the habitualization of human activity is coextensive with the latter's institutionalization (Berger & Luckmann, 1979, p. 71).⁷

Primary Socialization

Later in this paper the theory will be applied on the elementary process of institutionalization for proving its self-reinforcing aspects. If you assume that social structures consist of or are institutions it is interesting to figure out how human beings relate their construction of their own nature to new or existing social structures, thus to new or existing institutions. Therefore it is interesting to describe the process through which human beings construct their own nature in more detail. The process, when a human being first gets in touch with new institutions or social structures at all Berger and Luckmann call primary socialization. And when human beings already are somehow socialized, further processes are called secondary socialization.

Society as objective and subjective reality.

Berger and Luckmann's assumption is that society exists both as objective and subjective reality (Berger & Luckmann, 1979, p. 149). So when a child is born the objective reality already exists but the child's subjective reality does not yet. This is the situation of primary socialization. "The beginning point of this process is internalization: the immediate apprehension or interpretation of an objective event as expressing meaning, that is, as a manifestation of another's

subjective processes which thereby becomes subjectively meaningful to myself.” (Berger & Luckmann, 1979, p. 149)

When a child is confronted with an objective reality without having a subjective reality yet, it starts generating one: It tries to catch the meaning of an objective event.

Internalization.

The process of creating an own subjective understanding like an internal picture of the objective event is called internalization. This understanding then is associated with other internalizations and thus a subjective reality is created inside the child.

This does not mean that I understand the other adequately. I may indeed misunderstand him: he is laughing in a fit of hysteria, but I understand his laughter as expressing mirth. But his subjectivity is nevertheless objectively available to me and becomes meaningful to me, whether or not there is congruence between his and my subjective process. Full congruence between the two subjective meanings, and reciprocal knowledge of the congruence, presupposes signification, as previously discussed. However, internalization in the general sense used here underlies both signification and its own more complex forms. More precisely, internalization in this general sense is the basis, first, for an understanding of one’s fellowmen and, second, for the apprehension of the world as a meaningful and social reality. (Berger & Luckmann, 1979, pp. 149)

Social reality: through significant others to the generalized other.

So, subjective realities can differ from human being to human being.⁸ And although two persons might share some aspects of objective reality in the same situation, they might

internalize and thus interpret it differently. For gaining an understanding of objective signification and understanding the ‘world as a meaningful and social reality’ it is necessary for a child to have ‘significant others’ who act in comparable situations in the same manner so that the child can understand the signification of it. Berger and Luckmann state that primary socialization creates in the child’s consciousness a progressive abstraction from the roles and attitude of specific others to roles and attitudes in general (Berger & Luckmann, 1979, p. 152).

This abstraction from the roles and attitudes of concrete significant others is called the generalized other. Its formation within consciousness means that the individual now identifies not only with concrete others but with a generality of others, that is, with a society. Only by virtue of this generalized identification does his own self-identification attain stability and continuity. He now has not only an identity vis-à-vis this or that significant other, but an identity in general, which is subjectively apprehended as remaining the same no matter what others, significant or not, are encountered. (Berger & Luckmann, 1979, p. 153)

When this concept of the generalized other “has been established in the consciousness of the individual” primary socialization ends. Now the child “is an effective member of society and in a subjective possession of a self and a world” (Berger & Luckmann, 1979, p. 155).

Secondary Socialization in Comparison to Primary Socialization

While in primary socialization the individual’s first world is constructed (Berger & Luckmann, 1979, p. 155) following later socialization is called secondary socialization.

“Secondary socialization is the internalization of institutional or institution-based ‘sub-worlds’.

Its extent and character are therefore determined by the complexity of the division of labour and the concomitant social distribution of knowledge.” (Berger & Luckmann, 1979, p. 158)

Berger and Luckmann then use the differentiation between primary and secondary socialization to address the aspect of knowledge, its social distribution, its evolving and results from it for society. For the later proof in this paper the question needs to be answered whether the process of institutionalization in the considered context more contains aspects of primary or secondary socialization. While it might be obvious that at least not every social institutionalization is made by babies, so at least not every institutionalization can be primary socialization, and thus the secondary socialization needs to be applied, the process of institutionalization (as defined in this paper) contains aspects of both: primary and secondary socialization.

So for transferring the concept of primary and secondary socialization in the context of the later proof it will be interesting in which aspects they differ, besides being first or second socialization, and what similarity can occur.

Differentiation criterion: choice of significant others.

Significant others are necessary to understand the meaning and connection of actions, to create a subjective reality and understand the concept of a generalized other. “In primary socialization there is ... no choice of significant others. Society presents the candidate for socialization with a predefined set of significant others, whom he must accept as such with no possibility of opting for another arrangement.” (Berger & Luckmann, 1979, p. 154)

Opposed to this, in secondary socialization one world already is created and for creating and understanding new sub worlds it is not necessary to rely on the same ‘significant others’ but

instead the significant persons and surroundings can change and be chosen and impact the child or grown up.

Differentiation criterion: intensity of identification.

The intensity of identification in primary socialization is very high, because it is the first world that is constructed and thus in this phase to the child it seems to be not one world out of many, but the only one.

Since the child has no choice in the selection of his significant others, his identification with them is quasi-automatic. For the same reason, his internalization of their particular reality is quasi-inevitable. The child does not internalize the world of his significant others as one of many possible worlds. He internalizes it as the world, the only existent and only conceivable world, the world tout court. It is for this reason that the world internalized in primary socialization is so much more firmly entrenched in consciousness than worlds internalized in secondary socializations. (Berger & Luckmann, 1979, p. 154)

The emotional connection to his very first significant others therefore is very intense. In secondary socialization with the optional differentiation between sub worlds the intensity of internalization and the identification with in this surrounding significant others can vary.

While primary socialization cannot take place without an emotionally charged identification of the child with his significant others, most secondary socialization can dispense with this kind of identification and proceed effectively with only the amount of mutual identification that enters into any communication between human beings. Put crudely, it is necessary to love one's mother, but not one's teacher. Socialization in later life typically begins to take on an affectivity reminiscent of childhood when it seeks

radically to transform the subjective reality of the individual. (Berger & Luckmann, 1979, p. 161)

Similarity: primary-like socialization.

But secondary socialization can also occur with increasing or very high identification with in that surrounding significant others. So although the first world already exists and a second one is created, the second one can substitute parts of the first world and the second world can become the new reality. The intensity of identification with significant others in the process of secondary socialization depends on the institutionally necessity of it. And in this variable intensity it can increase up to (nearly) the level of primary socialization: Thus this sort of secondary socialization can be called primary-like socialization.

When the process requires an actual transformation of the individual's 'home' reality, it comes to replicate as closely as possible the character of primary socialization, as we shall see a little later. But even short of such transformation, secondary socialization becomes affectively charged to the degree to which immersion in and commitment to the new reality are institutionally defined as necessary. The relationship of the individual to the socializing personnel becomes correspondingly charged with 'significance', that is, the socializing personnel take on the character of significant others vis-à-vis the individual being socialized. The individual then commits himself in a comprehensive way to the new reality. He 'gives himself' to music, to the revolution, to the faith, not just partially but with what is subjectively the whole of his life. The readiness to sacrifice oneself is, of course, the final consequence of this type of socialization. (Berger & Luckmann, 1979, pp. 164)

Giddens' Structuralism and the Duality of Structure

While Berger and Luckmann's theory is based on the concept of 'habitualization' Giddens theory is based on Berger and Luckmann's theory but he uses the term 'routinization'. Giddens' theory of the duality of structure and Berger and Luckmann's theory of socialization will be used in the later proof in conjunction. So in comparison to Berger and Luckmann's theory based on habitualization as a next step Giddens' theory is introduced.

*Giddens' Structuralism**Routinization.*

Giddens (1984) suggests "a fundamental concept of structuration theory – that of routinization":

The routine (whatever is done habitually) is a basic element of day-to-day social activity. I use the phrase 'day-to-day social activity' in a very literal sense, not in the more complex, and I think more ambiguous, way which has become familiar through phenomenology. The term 'day-to-day' encapsulates exactly the routinized character which social life has as it stretches across time-space. (p. xxiii)

Although Giddens further in the book concentrates on 'social life as it stretches across time-space' and how knowledge and structure relate and evolve in society, his basic theoretic assumptions fit the theories above and are based on the concepts of structure and the duality of structure and, of course, the notation of routinization. The way he describes routinization may already remind of acting in the presence of path dependency as well as sensible aspects of institutionalization.

Routinization is vital to the psychological mechanisms whereby a sense of trust or ontological security is sustained in the daily activities of social life. Carried primarily in practical consciousness, routine drives a wedge between the potentially explosive content of the unconscious and the reflexive monitoring of action which agents display. (Giddens, 1984, p. xxiii)

Social structure.

In opposing structuration theory to functional approaches Giddens (1984) states that by functionalists 'structure' is usually understood as some kind of 'patterning' of social relations or social phenomena (p. 16).

Such conceptions are closely connected to the dualism of subject and social object: 'structure' here appears as 'external' to human action, as a source of constraint on the free initiative of the independently constituted subject. As conceptualized in structuralist and post-structuralist thought, on the other hand, the notion of structure is more interesting. Here it is characteristically thought of not as a patterning of presences but as an intersection of presence and absence; underlying codes have to be inferred from surface manifestations. (Giddens, 1984, p. 16)

So Giddens prefers the understanding of structure not only as a present appearance or 'external to human action', but more as an intersection of present and past: manifested former actions intersected with present situational aspects. As such 'structure' is closely linked to human agency:

To say that structure is a 'virtual order' of transformative relations means that social systems, as reproduced social practices, do not have 'structures' but rather exhibit

‘structural properties’ and that structure exists, as time-space presence, only in its instantiations in such practices and as memory traces orienting the conduct of knowledgeable human agents. (Giddens, 1984, p. 17)

Institutions.

Thus ‘structure’ can not exist apart from human agents, but consist of agents’ memories and agents’ practices. And he defines institutions as special parts of structure: “The most deeply embedded structural properties, implicated in the reproduction of societal totalities, I call structural principles. Those practices which have the greatest time-space extension within such totalities can be referred to as institutions.” (Giddens, 1984, p. 17)

The criterion of having ‘the greatest time-space extension’ resembles the concept of institutions as an end-state or lock-in: ‘the greatest’ means that there are pre-versions with a lower time-space extension thinkable. At this point he leaves open the definition of a process of institutionalization but instead concentrates on the institution as a border or maximum version. So the basic notations to apply his concepts later are presented.

The Duality of Structure

Giddens’ main aspect of structure that he uses throughout the book and his theory is the ‘duality of structure’. It has slightly been mentioned when the notation of ‘structure’ has been introduced that it is both internal and external, an intersection of presence and absence. ‘The duality of structure’, being as well medium as outcome of human action, he summarizes as follows:

The constitution of agents and structures are not two independently given sets of phenomena, a dualism, but represent a duality. According to the notion of the duality of structure, the structural properties of social systems are both medium and outcome of the practices they recursively organize. Structure is not 'external' to individuals: as memory traces, and as instantiated in social practices, it is in a certain sense more 'internal' than exterior to their activities [...]. (Giddens, 1984, p. 25)

And later he adds what describes the implications of next chapter's proof:

The duality of structure is always the main grounding of continuities in social reproduction across time-space. [...] The flow of action continually produces consequences which are unintended by actors, and these unintended consequences also may form unacknowledged conditions of action in a feedback fashion. (Giddens, 1984, pp. 26)

Proving the Statement:

Each Institutionalization Elementary is a Self-Reinforcing Process⁹

As mentioned in the topic an elementary perspective is used. So it is assumed for the process of institutionalization that at least one actor exists who supports the process of institutionalization which means that in his subjective reality already an idea of at least a pre-version of the later institution exists.

*Describing the Process of an Institutionalization**The Institution as Means and End of Action*

Through an institutionalization actors gradually build up social structures. When first structures are created, like e.g. in a repeated action, the created and thus existing structure, although perhaps with a very low intensity in the beginning, influence back on the actor, because of the duality of structure (Giddens, 1984): As to the duality of structure, structure is means and end of action.

Thus structure is the result of e.g. an institutionalization and also functions as a medium. Applied in this description of an institutionalization, the beginning existence of an institution is a result of the actor's behaviour. But as a medium it also effects the actor's next decisions and actions and thus again influences the process of institutionalization.

The Institution Influences the Actor in a Process of Socialization

If one takes a closer look at this 'process of institutionalization' the institution which begins to exist influences the actor in a process of socialization (Berger & Luckmann, 1979). So it can be asked whether it is a process of primary or secondary socialization. Assumably the actor is not a baby and thus the built up institution is not one of the actor's 'first world'. So the concept of secondary socialization needs to be applied. But there is something special about this secondary socialization: Because the actor is the one who created the influencing surrounding, it has a similarity with primary socialization. The institution which starts to exist perfectly fits the actor's subjective reality. Thus the social structure which begins to exist gives feedback of congruence back to the actor. So the more the institution exists and the stronger it gets the more the actor's significant others, relevant for this institution, feedback on the actor in congruence

with the actor's inner self. This means that following the process of institutionalization the creating actor is increasingly affirmed in his action of building up the institution.

It also means that the intensity of socialization in which the new institution affects the considered actor increasingly is one of primary socialization because the significant others increasingly match the actor's subjective reality.¹⁰

Concluding Proof

Thus from the detailed consideration of socialization processes within the process of institutionalization it can be concluded that the actor's decisions are increasingly aligned with the process of institutionalization and 'with the institution'. So the institution's medium function strengthens the process of institutionalization which again results in a more intense institution, working again as result and medium and so on. This way there is a feedback loop integrated in the process of institutionalization which effects that the upcoming institution gets self-reinforced the very minute it exists.

So every institutionalization elementary is a self-reinforcing process and thus elementary increases path dependency.¹¹

Corollary

The just presented proof showed that on the at least one assumable actor who already keeps an idea or pre-version of the later institution in his subjective reality the process of institutionalization effects in a self-reinforcing way. But each step the growing institution which begins to exist feedbacks on the one assumed actor, this institution also affects every other actor who resembles the one actor in the described way: Thus the growing institution affects each

actor who already keeps an idea or (pre-)version of this institution in his subjective reality. This way the growing institution affects each of those actors inducing a self-reinforcing process and increasing their path dependency.

Linking Institutionalism and Path Dependency Theory

Institutions as Manifested Path Dependency

If you assume there exists a path dependency theory which includes objects referred to the narrower and the broader aspects of path dependency the following characteristics can be concluded:

As just shown every institution can be viewed elementary as being path dependent, because every institutionalization elementary is a self-reinforcing process with the potential to lock-in as an institution.¹² Thus comparing institutionalism, as a theory which is based on institutions as main objects, with a path dependency theory which might be based on processes described as path dependent the theories have a lot in common:

Because every institutionalization can be viewed elementary as a path dependent process, the theory of institutionalization also must be part of path dependency theory. Because of the closure of theories, also the institution as the result of an institutionalization must be part of path dependency theory.

So if you would reduce path dependency theory on the aspect of 'locked-in's the objects of path dependency theory are equivalent to the objects of institutionalism: institutions. With this link between the two theories research about 'locked-in's using a narrow definition of path dependency might already be included in institutionalism. Having this conclusion in mind the

question can be posed, how path dependency and a path dependency theory can be defined best for serving research interests that perhaps can not totally be answered with institutionalism yet?

In the following conclusion it is outlined that path dependency theory has the option to use a slightly different perspective than institutionalism merely including it when used on the same objects, but also offering the chance to use it in a broader sense.

Path Dependency on Micro Level: Actors' Role

The main focus of institutionalism is on institutions as a structure in society which exists externally of actors (cf. e.g. Zucker, 1977). This means that actors can not be totally ignored, because they are the ones that rebuild institutions or might change them incrementally. But these actors can be replaced and this way, institutions may survive generations of actors and might stay quite the same over time.

Using the Perspective of Path Dependency Theory (Definition on Micro Level)

Path dependency means literally that an actor's decisions depend upon a path. So this path dependency theory can be used to describe a more actor centered approach than institutionalism which literally means 'theory of institutions'.

For this way of research a broader definition is suggested:

Defining 'path dependency' as a variable of how strongly an actor tends to decide path dependently.¹³

A Broad Understanding, a General Approach

An actor acts 'path-dependent': That is, when the actor's acting depends on 'his' (former¹⁴) path he follows. Thus the 'next-step'- action's decision depends on the 'path' followed before. This way history matters. Decisions are not only viewed as related to present criteria, but instead the perspective is chosen to consider former actions as influential for future decisions. Whether the actor follows a path deliberately and relates own decisions mindfully on former actions or not does not matter as from the perspective of path dependency an external observer could watch the decision process or action series as forming a trace of the actor's decisions and actions. And the observer could interpret following actions as being based on former ones and thus monitor the actor as acting path dependent.¹⁵

In this broad sense 'path dependency' seems to be observable in every decision except for totally random ones, because in every decision or action at least one criterion might be the present situation and thus the situation before the 'next step' of action for which the decisions are made that very moment. So in observing this situation the action made depends on the actions and situation 'before' and thus history matters.¹⁶

So in this broad sense, every action can be viewed as being path dependent.¹⁷

Increasing Path Dependency

Thus it is interesting to view path dependency no longer simply a binary criterion which can be either 0 or 1 and a process as being either path dependent or not path dependent. But it seems more interesting, as every action and thus every process is path dependent, to consider it 'more' or 'less' path dependent and thus 'path dependency' a dynamic variable which can increase or decrease.

For example in a self-reinforcing process path dependency is increased:

Self-reinforcing means there is a 'self' which reinforces the process and thus reinforces the actor to keep up the process. And each time the 'self' gets reinforced, the 'self' increases and again the reinforcement increases and thus the intensity for the actor to decide conform to the process increases. So this way through a self-reinforcing process the actor's path dependency increases.¹⁸

Path Dependency on Macro Level: Institutions as Manifested Path Dependency

Each institution can be interpreted as the result of an institutionalization of this institution. For example a standard is the result of standardization, and a habitude is the result of habituation, etc.¹⁹ So each institution is the result of a self-reinforcing process which increased path dependency and also as a medium keeps on affecting actors to decide and act path dependently through its mere existence as being a part of social structure and its duality (Giddens, 1984).

Using this interpretation, it is not only possible to define path dependency on micro-level as a variable of how intensely an actor sticks to a path in his decisions and actions. But it further can be used in a macro-perspective to define path dependency as an aggregated variable of how intensely members of a special group, in a defined area, on a special subject, or also e.g. in 'global society' tend to decide and act 'path dependent' on e.g. group-, area-, subject-, or societal issues. On the macro-perspective it can be concluded: The higher the institutionalization in the considered respect the higher is the path dependency of the involved actors.

Multi-Level Conclusions on Societal Path Dependency

This way for getting an impression of an actor's path dependency, which is the intensity to stick to a path in his decisions and actions and thus a micro-variable, the macro-perspective of institutions can be used: The higher the level of institutionalization and thus the stronger the influence of institutions on the involved actors, the higher is the path dependency of each involved actor.

Though, like every aggregated data this conclusion from the aggregated macro to the micro level more describes the tendency or the average and it can still differ from actor to actor as grades of socialization and influences of institutions can differ from individual to individual. But this perspective can still be useful, as e.g. rising standardization, or rising the level of regulation and thus producing more institutions, and rising the level of institutionalization can be predicted as increasing path dependency.

Opposed to primary-like socialization of the involved actors in an institutionalization process, the later effects of an existing institution as a social structure and a medium on another actor need not result in the affected actor's commitment, but can also cause a converse actor's reaction. But still the intensity in which actors are affected shows the intensity of their path dependency. Path dependency in the described sense does not precisely imply the 'direction' of the actor's commitments, but simply represent an average intensity in which the considered actor sticks to 'his/her' individually assumable paths.

Conclusion

This paper's theory is presented in a slightly mathematical way using social science theories for 'proving' that every institutionalization elementary is a self-reinforcing process.

While in an empirical approach it would have been necessary to first generate a typification of every possible institutionalization and then at least show in practice for each single type that the hypothesis is true, on the presented level of abstraction it is possible to compose a ‘proof’ without any further typification or the necessity to show separately that really all types possible were considered.

The assumptions for the ‘proof’ were the acceptance of Berger and Luckmann’s (1979) theory of socialization and Giddens’ (1984) theory of the duality of structure. And in the elementary approach it is assumed that in the process of institutionalization always exists at least one actor who supports the process.²⁰

Further staying on this level of abstraction the theories of institutionalism and path dependency can be compared using the just proved hypothesis as a linkage between both. If there are two theories describing basically same elements it can be asked what the two perspectives describing the same phenomena or objects can be used for. As an answer a basic structure for a path dependency theory is presented building bridges between macro and micro level for transferring hypotheses or facts from one level to the other, from society to individual level, from institutionalism to action or decision theory.

“Unfortunately, analysts have yet to define the concept ‘path dependence’ in a manner that demonstrates why path-dependent patterns and sequences merit special attention.”

(Mahoney, 2000, p. 507)

In this paper a theoretical basis is provided for ‘intertheoretical’ work, using the presented linkage between institutionalism and path dependency theory, as well as for a multi-level approach using path dependency theory.

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Footnotes

¹ Thank you for the generous invitation and enriching discussions at and around the ‘International Summer School: On the logic of Self-reinforcing Processes in Organizations, Networks and Markets’ held at Freie Universität Berlin, Germany, July 13th-17th 2009. Convenors: Georg Schreyögg and Jörg Sydow (Freie Universität Berlin) in collaboration with Huseyin Leblebici (University of Illinois at Urbana-Champaign). Grants were awarded by the Centre for International Cooperation (CIC) of Freie Universität Berlin.

² To assure that both theories can be used consistently together their basic concepts of habituation (Berger & Luckmann, 1979) and routinization (Giddens, 1984) as basis for their understandings of institutionalization (Berger & Luckmann, 1979) and institutions (Giddens, 1984) are also outlined in this context.

³ A ‘self-reinforcing process’ literally is a process, where a ‘self’ gets ‘reinforced’. Thus for each application it has to be defined whatever the ‘self’ is that gets reinforced. E.g. the ‘self’ can be the number of involved individuals which enlarges in the reinforcement, an attribute of a single actor which intensifies or the ‘number of’ fields of application which enlarges when a pattern increasingly is transferred to linked fields.

⁴ Some authors also consider self-maintaining processes as leading to path dependency (e.g. Knapp, 2007). So it can not be directly concluded that wherever path dependency exists must act a self-reinforcing process, because it could also be a self-maintaining process that keeps path dependency on its level. But the only relevant direction of causality needed for conclusions after the later proof is that a self-reinforcing process, especially with a potential for a lock-in, leads to path dependency and increases it.

⁵ Institutions are changing only incrementally as for reasons of ‘path dependency’ however this is defined in a more or less economic interpretation of actors choosing rationally and thus costs and benefits having to be the main basis.

⁶ It can be debated whether or not it is useful to address present institutions in a process manner of considering their former creation which might have ended long ago and perhaps not easily been documented in history. But path dependency is referred to as a concept of ‘history matters’ so it might be exactly this perspective which helps to reach a better understanding of present situations.

⁷ In their later description ‘institutionalization’ is a process of “reciprocal typification of habitualized actions by types of actors” (Berger & Luckmann, 1979, p. 71) which is how they describe the process of objectivation in detail.

⁸ One human being’s subjective reality can be different from the one of someone else.

⁹ This includes the potential for ‘locking-in’ an institution, because institutions only change incrementally as North has described (North, 1990; 2005).

¹⁰ Berger and Luckmann (1979) describe this phenomenon of different intensity with which institution creating actors are affected opposed to distant actors who later have to be socialized in the context of first generation and second generation questions of adapting institutions.

¹¹ It also shows the same attributes of path dependent processes as because of the primary-like socialization the actor’s interpretation of the process’ intensity can be far lower than an observer might monitor it which might cause decisions and actions ‘on the path’ longer than perhaps an objective analysis and decision as to optimization criteria would recommend. So even

the ‘potential inefficiency’, as a typical attribute of path dependent processes, can occur and the decision or action ‘using an institution’ can describe the situation of a lock-in.

¹² Institutions only change incrementally as North (1990; 2005) has described.

¹³ A variable of how strongly an actor tends to ‘stick to a path’.

¹⁴ Perhaps it might be assumed that it more needs to be the ‘present’ path he follows than the ‘former’ one. But if you assume an observer in the moment of the actor’s decision the observer could only monitor the actor as acting path dependent, if there can be assumed a path he followed before. So this definition coincides with Arthur’s and David’s characterization of path dependency in which they point out the fact of contingency in the beginning of paths. If the actor’s decision is the beginning point of a new path and thus does not result from former paths, an observer could not monitor the actor as deciding ‘path dependent’ that very decision which then might seem more contingent than predictable.

¹⁵ It can be described as: ‘past-dependence’ + ‘a path can be assumed on which the actor depends’ = ‘path-dependence’.

¹⁶ Considering perfectly random actions, it seems to be rarely used, for it needs a great bit of luck to interact successfully without destroying or hurting surroundings, oneself or others. So it can be asked for ‘a reason’, why it should be possible to perfectly randomly choose actions and if it is deliberately chosen to be so, this mere ‘reason’ again may be considered as relating the outperformed actions to expectations, based on experiences, a mindful design of the situation for ‘allowing’ a random way of actions, and thus to ‘history’. So a totally random acting actor can be viewed as a very instable appearance if possible at all.

¹⁷ Other authors judged such a ‘general’ understanding as being ‘too general’ to be useful at all (e.g. Sydow, Schreyögg, & Koch, 2005; 2009; Page, 2006). Thus they would conclude

from the generality of the basic definition, and thus from the generality of the theory's applicability, a uselessness of the whole theory. But there are other theories whose very generality is the special criteria for their success, like e.g. atom or molecular theory.

¹⁸ This is written in detail for showing that the dynamic approach is consistent with the other definitions of path dependency stated in the beginning of this paper.

¹⁹ The neoclassical definition of an institution can be considered for these two examples (Meyer, & Rowan, 1977).

²⁰ 'Supporting' in this context does not necessarily mean a positive valuation.

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