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Morality in Times of Naturalising the Mind

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The Effectiveness of Intentions – A Critique of Wegner

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Abstract: In this chapter a general and empirically substantiated challenge to the traditional, intentional-causalist conception of action is discussed, namely that the conscious will is, allegedly, illusory, which implies that intentions do not cause actions. This challenge has been advanced by Daniel Wegner as an implication of his model of the experience of conscious will. After showing that attempts to directly falsify Wegner's illusion thesis have failed and that a real falsification will not be easily available, the challenge is answered here by criticising Wegner's model: those parts of the model which should sustain the illusion thesis are not substantiated. The rest of the model, however, should enrich our self-reflexive dealing with our desires, intentions and actions.

1. A Challenge to the Intentional-causalist Conception of Action and the Aim of this Chapter

The aim of this chapter is to defend the traditional, intentional-causalist conception of action against a challenge raised by recent neuropsychological theories, in particular by Daniel Wegner's theory.

The traditional conception of action is intentional-causalist: An *action* consists of a behaviour which is caused (in a non-deviant way) by a respective intention, where this intention itself is actually or possibly the result of a deliberation which aims at fulfilling our desires.[1] This conception of action expresses what is valuable in

[1] Proponents of an intentional-causalist conception of action, who have held that actions are caused by intentions or volitions, are e.g. Aristotle, Augustine, Ockham, Thomas Aquinas, Descartes, Locke, Leibniz, Hume, Kant, or contemporary theorists like Fred Adams, Richard Brandt, Bratman, Davidson, Goldman and Mele. The second idea, i.e. that intentions are based on actual or possible deliberation, which represents the higher faculties of humans, is developed e.g. in Aristotle, Aquinas, Leibniz or Kant; for a

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actions and makes up the foundations of practical rationality, freedom of decision and freedom of action as well as of responsibility. The value consists in the fact that a mental structure, which we may call the "*ego*", i.e. that part of our mind which is consciously accessible, with which we identify and which we consider to be the kernel of our self, controls our behaviour in a rational way and, via the consequences of our behaviour, also some segment of the outer and inner world. Parts of the ego are, among others, our desires, our knowledge about options and consequences and the deliberation mechanism, which tries to determine the option that best fulfils our desires and, accordingly, establishes an intention. The *intention* then is the hinge between deliberation and execution: it is actually or possibly the result of a deliberation, and, if everything runs smoothly, it causes the intended behaviour (Lumer 2013). Please note, an ego conceived in this way is not a homunculus but a mental structure in which certain processes occur; intentions are one group of results of such processes. The ego does not act like an agent but it does, among other things, generate our intentions.

The American psychologist Daniel Wegner has developed a theory of the "experience of conscious will", i.e. a theory of how we come to believe that we act, with which he has defended the strong claim that the conscious will is an illusion. This theory as well as the claim have found wide diffusion and often acceptance among psychologists, neuroscientists, the general public and, though perhaps to a somewhat lesser extent, philosophers. Together with the work of Benjamin Libet it is probably the currently most influential attack on the traditional concept of action.

This chapter discusses the main and direct way in which this theory challenges the traditional conception, namely the theoretical model of the experience of conscious will (as well as its substantiation), by which Wegner defends his claim of the illusion of the conscious will. This claim itself is a very radical attack on the intentional-causalist concept of action, which questions the causal efficacy of intentions (or their physiological underpinnings) altogether. If it were true, the basis of our ideas of practical

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present-day elaboration (including references to the classics) see: Lumer 2005; 2013.

rationality, responsibility and freedom would be entirely undermined. The following discussion tries to show that that part of the model of the experience of conscious will which should sustain the illusion thesis is entirely unfounded.

Wegner's theory and, even more, the empirical evidence he adduces contain still another challenge to the intentional-causalist concept of action: Wegner presents an impressive subset of examples which seem to show that there are actions, even lots of them, without underlying intention – which, of course, contradicts the idea that actions are caused by intentions –: actions of schizophrenics, hypnotic behaviour, actions directed by subliminal priming, simply unconscious situation-specific actions, dynamically unconscious actions (e.g. Freudian slips), automatic routine actions, ideomotor behaviour ((micro-)movements caused by merely thinking of this movement) etc. Many of these kinds of examples also make the rounds in various publications by other critics of the traditional conception of action as evidence for a scientific, reductionist naturalism. They are really challenging but must be discussed group by group. Unfortunately, there is not enough space to do this here.[2]

2. Prelude – The Concepts of 'Conscious Will' and 'Empirical Will'

Daniel Wegner has challenged the traditional picture of human agency, coming to a conclusion which makes up the title of his best known book: "The illusion of conscious will." The rich empirical material sustaining this thesis consists of a wealth of examples where (i) people feel that they are (or have been) willing and executing an act that they are not (or have not been) doing or, conversely, (ii) are not willing an act that they in fact are doing or where (iii) they report about intentions for really executed actions though in fact they cannot have had these intentions, i.e. they confabulate intentions. Some examples are: (i) after strong accusations by others, someone believes to have committed a fault (Wegner 2002: 10 f.); a person intentionally "moves" her phantom

[2] However, I am preparing critical discussions of some of these examples, e.g.: Lumer, forthcoming.

limbs (ibid. 40); someone has the impression that another person's hand movements projected to a place where one expects to have one's own hand are one's own movements (ibid. 41-43); (ii) a person experiences the alien hand syndrome, i.e. a neuropsychological disorder in which a person experiences one hand as operating with a mind of its own (ibid. 4-6); a hypnotised subject is acting under the influence of hypnosis thereby feeling externally controlled (ibid. 271-315); people very often unconsciously imitate other persons (ibid. 128-130); in spiritistic séances people provoke many kinds of "magic happenings" without feeling their doing (ibid. 101-120); Wegner presents a long list of other forms of action projections, where people attribute their own actions or voluntarily produced events to external sources (ibid. 187-270); (iii) after the execution of posthypnotic suggestions the former hypnotised subjects often invent intentions for their deeds (ibid. 149-151); Wegner describes many other kinds of confabulations (ibid. 171-186).

The phenomena just cited are examples of the empirical basis of Wegner's theory of the "illusion of conscious will". The central conceptual part of this theory is the distinction between two meanings of "will": Wegner defines the '*empirical will*' as: "the causality of the person's conscious thoughts as established by a scientific analysis of their covariation with the person's behavior" (Wegner 2002: 14). So, the 'empirical will' captures real intentions which cause the respective actions. Wegner's definition of 'conscious will' instead is taken from David Hume: The *conscious will* is "the internal impression we feel and are conscious of, when we knowingly give rise to any new motion of our body, or new perception of our mind" [3] (ibid. 3; italics deleted by me, C.L.); Wegner further elucidates this: "The [conscious, C.L.] will is not some cause or force or motor in a person but rather is the personal conscious feeling of such causing, forcing, or motoring" (ibid.). Hence, the conscious will, in Wegner's terminology, is a sort of felt belief to act. – Wegner's theory is mainly about the conscious will.

Wegner's definition of 'empirical will' comes close to but does not exactly capture a usual meaning of "will". An ontologically more correct definition would begin like this: 'the empirical will is the

[3] Hume <1739-40> 1978: 399 (= II.3.1, para. 2). In Hume this is the definiens for 'will' simpliciter.

person's conscious thought about some proper (future) behaviour, where the thought causes this behaviour …' Empirical will defined in this way is the same as an intention. "Conscious will", however, is a misnomer – pace Hume –; the definiens does not come close to e.g. any of the 21 meanings of the noun "will" listed in "Webster's Third New International Dictionary of the English Language Unabridged" (Babcock Gove 1993: 2617). A better short name for what Wegner (and Hume) define would be "control experience" or "control belief".

To use a misnomer is a peripheral error in itself. If, however, the misnamed entity is confused with the object usually designated with that name this can cause serious problems, and in particular fallacies of equivocation. Unfortunately, this is what happens repeatedly in Wegner's book where the main fallacy of equivocation is not directly stated but at least insinuated to the broad public: (i) Conscious will (i.e. control experience) is a construction or fabrication, hence [why?] (ii) an illusion (Wegner 2002: 2); (iii) as a consequence, the will (i.e. intentions, hence mental states that cause respective actions, or the faculty to have such intentions) does not exist; therefore: (iv) "we develop the sense that the intentions have causal force even though they are actually just previews of what we may do" (ibid. 96). Form (i) does not follow (ii): a mental construction is an illusion only if its content is false. Furthermore, the step from (ii) to (iii) entails the just explained fallacy of equivocation. In (iv), finally, only a further explanation is provided. A less dramatic but this time explicit fallacy of equivocation is e.g. this: "When we apply mental explanations to our own behavior-causation mechanism, we fall prey to the impression that our conscious will causes our actions" (ibid. 26). I have some doubts that anybody is so confused as to consider her *control experience* (= "conscious will"), i.e. her (felt) belief that her *intentions* cause her behaviour, to be (what the belief's content itself denies) the cause of her behaviour.[4] Wegner's sentence only makes sense (which, of course, does not imply that it is true) if by "conscious will" he this time means the will, i.e. the intention itself and not the control

[4] A bit more slowly: Wegner supposes that people have this impression: 1. They have a conscious will, i.e. they believe that their *intentions* cause their behaviour. 2. In addition, they believe (have the impression) that *belief 1* causes their behaviour – of course in contradiction to belief 1.

experience. With this interpretation ("we fall prey to the impression that our will / intention causes our actions") the sentence is not nonsensical, but now it implies or at least implicates the very strong – and perhaps false – thesis that the will, i.e. the intention does not cause our actions.

3. Wegner's Theory of the Experience and Illusion of Conscious Will

The just provided linguistic analysis was already a look ahead. What does Wegner's theory say? Its main topic is to explain the above listed dissociations and confabulations, following the basic idea that the "conscious will" (i.e. the control experience) is not an immediate experience of the ongoing causal processes but a cognitive construct, the result of an inferential reasoning about this causal process on the basis of the (mostly experiential) material at hand (e.g. Wegner 2002: 65 f.). I think this basic idea is absolutely right (some less basic criticisms: Bayne 2006: 170-175; Haggard et al. 2002). Already Hume wrote that we cannot perceive causality but only sequences of events; we construct our causality assumptions on the basis of this information. Normally we are quite good in self-attributing intentions, the causal relations and, thereby, actions. If the information basis, however, is missing or if the available information is false or if we are systematically led astray then the conscious will is illusory, it contains false information. (Cf. also Dennett 2003: 243-244.) Wegner has presented a serious analysis of these processes and provided many important insights and material. So far, however, the idea is neither spectacular nor in conflict with the traditional concepts of action, intention, free will and responsibility because the essential propositions of the traditional picture do not speak of our control *experience* (Wegner's "conscious will") but of our control itself (Wegner's "empirical will"), specifically that our intentions in fact rather reliably (via an action generating mechanism) cause the respective behaviour and then further anticipated consequences.[5] If

[5] The traditional view of actions supposes only that intentions cause the respective behaviour and makes no particular assumptions about an agent's knowledge about this causal process. Though the great majority of action theorists shares this view, there are some philosophers, e.g. Anscombe, Davis, Ginet, Runggaldier and Searle, who detach from the traditional view

the agents' *beliefs* about such singular causal relations are inferential and if they are sometimes false this, of course, does not imply that such causal relations *themselves* do not exist and that the general control hypothesis, i.e. that our intentions in most cases rather reliably cause the respective behaviour, is false.

Now, Wegner, however, implicitly also holds the following much stronger thesis, which may be called the "*illusion of (empirical) will thesis*": Acts of willing, i.e. intentions, do not cause the respective action. I have written he "*implicitly* claims" the illusion of the empirical will thesis because he never states it in a concise form, nor does he really argue for it, and in at least one passage he even affirms something to the contrary.[6] However, he

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and take an *immediate* (though sometimes false) knowledge of our actions, hence a knowledge that is not based on sensory experience, to be a characteristic feature of human action (and in part they even refuse the causalist assumptinon of the intention causing the behaviour) (Anscombe 1957: §§6; 8; 16; 28; Davis 1979: 15-16; 61-62; Ginet 1990: 13; 15; 20; 28; Runggaldier 1996: 88; 90; Searle 1983: 87-93). However, this is only one of several minority views about the defining features of actions. And it is quite obviously false: There are unconscious and automatic actions of which we are not even aware during their performance; in addition, we have to learn which type of behaviour is under our intentional control and which is not; finally, there is the whole body of evidence submitted by Wegner for the inferential nature of our control beliefs.

[6] "It is possible that both [conscious and unconscious, C.L.] kinds of representation of action might contribute to the causation of an action, and in either event we would say that real mental causation had taken place." (Wegner 2002: 161) Frankly, I am somewhat perplexed about this passage, which contradicts many other passages in Wegner's book. In any case its tendency towards the illusion of empirical will thesis is stronger than its tendency towards granting mental causation. – In a later paper, he even dissociates explicitly from the illusion of empirical will thesis ("Does all this mean that conscious thought does not cause action? It does not mean this at all.") (Wegner 2003: 68) and speaks more cautiously of "the *possibility* that conscious will is an illusion" (ibid. 65; my emphasis, C.L.); but he does not explain the strong contrast to his "Illusion of Conscious Will" book, and he again proposes the book's central model of the relevant causal relationships, which characterises the relation between "thought" (intention) and action as "*apparent* causal path" [Wegner's emphasis] as opposed to the "actual causal path" (ibid. 66). – One interpretation of these strong contradictions is that Wegner, when pressed later, had to admit that he has no evidence for his

seems to take the illusion of empirical will thesis for granted, as is evident from the following quotations.

> "We come to think of these prior thoughts as intentions, and we develop the sense that the intentions have causal force even though they are actually just previews of what we may do." (Wegner 2002: 96) "We perceive minds by using the idea of an agent to guide our perception. In the case of human agency, we typically do this by assuming that there is an agent that pursues goals and that the agent is conscious of the goals and will find it useful to achieve them. All this is a fabrication, of course, a way of making sense of behavior." (Ibid. 146) "Our sense of being a conscious agent who does things comes at a cost of being technically wrong all the time. The feeling of doing is how it seems, not what it is – but that is as it should be. All is well because the illusion makes us human." (Ibid. 342)

Then he adds a quotation from Einstein which concludes with:

> "So would a Being, endowed with higher insight and more perfect intelligence, watching man and his doings, smile about man's illusion that he was acting according to his own free will." (Ibid. 342)

Finally, already the title of the book, "The Illusion of Conscious Will" – beyond its explicit meaning –, also implies the stronger illusion of the empirical will thesis. This holds because in order for the conscious will, i.e. the control belief, to be also an *illusion* in addition to be a construction, this belief, rather generally, must have a false content. This content, however, is that the intention causes the action; that this content is illusory is exactly what the illusion of empirical will thesis says.

Wegner elaborates his basic idea in the form of a theoretical model:

> "[1] Unconscious mental processes give rise to [2] conscious thought about the action (e.g., intention, belief), and [3] other unconscious mental processes give rise to [4] the voluntary action. There may or may not be links between these underlying unconscious systems (as designated by the bi-directional unconscious potential path). […] It is the perception of the apparent path that gives rise to the experience of will: When we think that our conscious intention has caused the voluntary action that we find ourselves doing, we feel a sense of will." (Wegner 2002: 68)

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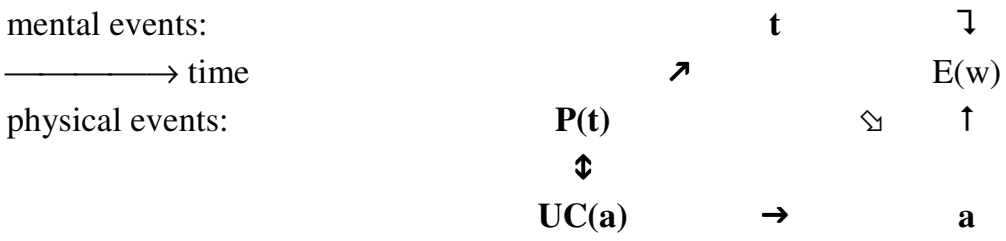
spectacular theses, which, however, are much more interesting and sell so well.

This is illustrated by a figure, whose essence is reproduced here in figure 1 (with a different graphic styling).

Fig. 1. Wegner's model of the experience of conscious will (adapted from: Wegner 2002: 68)



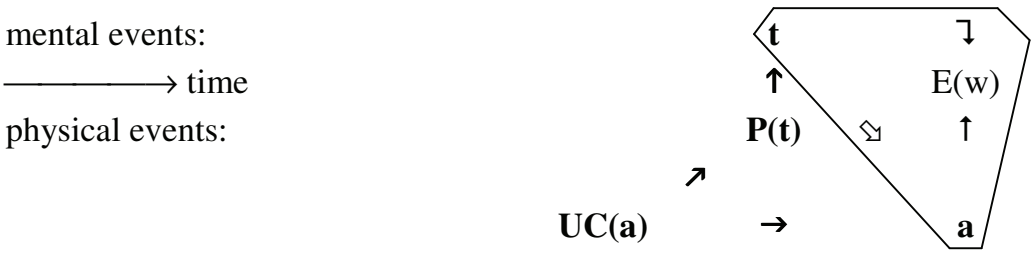
→ = causation
⇨ = apparent causation
↱↰ = makes up, contributes to
1. P(t) = physiological underpinning of the thought
2. t = thought [intention, belief]
3. UC(a) = unconscious cause of action
4. a = action
E(w) = experience of will

Wegner speaks of a "thought" instead of "intention" among other things because he advocates the ideomotor theory of action, which says that simply thinking of a movement (without intending it) leads to the respective movement (and does so to a maximum degree if a simultaneous antagonist representation does not prevent this) (Wegner 2002: 121; 120-130). There are at least two real mechanisms which can be captured by this description, first, that after having formed a respective intention the mere thought of an action can *trigger* this action, and, second, the mere representation of a movement (without any accompanying intention), via the common usage of the motor area for representational and for executive processes, can induce respective muscle tensions and micro movements. However, the latter usually is neither experienced nor taken to be an action (normally, the movement is not perceived at all); it is not the mechanism of an (intentional) *action* in the common sense. But we can leave this question open here, keeping in mind that the "thought" is meant to comprise intentions and, hence, that the model also captures actions in the narrow sense. – One peculiarity of Wegner's scheme is that the unconscious cause of the thought (or the thought's "physiological underpinning", as I have dubbed it) precedes the thought itself. According to supervenience or

identity theories of the mental this is impossible. However, this is a minor point; I will correct it in the following without saying. – According to Wegner, there are three possible relations between the unconscious cause of thought (the thought's physiological underpinning) $P(t)$ and the unconscious cause of action $UC(a)$, which are represented by the bi-directional causation arrow in figure 1: *i.* ($\downarrow$: $P(t) \rightarrow UC(a)$) The thought's physiological basis causes the cause of action. This is the causal way assumed in the traditional picture of action. If Wegner wants to sustain the strong thesis about the illusion, inefficacy also of the intention, i.e. the empirical will (illusion of empirical will thesis), he cannot hold this interpretation. *ii.* ($\uparrow$: $UC(a) \rightarrow P(t)$) The cause of action also causes the thought's physiological basis. This is the interesting new hypothesis: the thought or intention is only an epiphenomenon of the independent (and thoughtless) preparation for action. *iii.* ($=$: $UC(a) \parallel P(t)$) The action's cause and the thought's physiological basis are not causally connected. This scenario, however, is rather unlikely and implausible: The thought's content is the action after all; that such a thought occurred prior to the action itself without being causally connected to it in some way, would be such an unlikely coincidence that we can exclude this case here. – The only interesting hypothesis which is coherent with Wegner's claims of the illusion of the will thus is the assumption of causal path *ii* (though we have to keep in mind that he explicitly affirms all three ways).

If we apply these small corrections – physiological underpinning of the thought and thought itself occurring at the same time, the unconscious cause of action causes the physiological underpinning of the thought – we get the model represented in figure 2.

Fig. 2. Wegner's model of the experience of conscious will, corrected as explained in the text



This is a rather gloomy picture of human action because it does not leave any substantial role in the production of action to the ego.

The ego could be present in Wegner's "thought" or its physical underpinning; but according to Wegner's model, this thought does not cause and control the action – in contrast to what the intentional-causalist concept of action says. Some philosophers have accepted this challenge and tried to disprove Wegner's model directly by providing empirical evidences of direct effects of intentions on our behaviour. Mele (2009: 135-136) e.g. refers to Gollwitzer's experiments, which show that if people have already formed a goal intention, for example to do some physical exercise next week, and additionally form an implementation intention, which fixes the exact details of what to do, this increases compliance with the goal intention considerably (meta-analysis of 94 experiments: Gollwitzer & Sheeran 2006). Pauen (2014 (= this volume, chapter 1)) refers to effects found by Haggard et al. (2002) and Haynes et al. (2007). One could even try to prove the effectiveness of intentions in a still more direct way: The experimenter proposes a certain kind of action, e.g. to sign a certain kind of contract or to donate some money; then he asks the subjects whether they intend to accept the proposal; immediately afterwards he presents the contract or the collecting tin without further ado. Probably the rate of subjects, among those who have just declared to have the respective intention, who finally act as proposed will be close to to 100%, whereas among those who have declared they do not intend to comply it will be near to 0%, thereby proving the effectiveness of intentions. However, the problem with this kind of confutation of Wegner's model is that Wegner could reply to all these examples saying that it is true that they show an empirical correlation between intention and action but they do not prove that the intention was the cause of the action; and he could reaffirm that the real causes were some unconscious processes which produced the intention's physiological underpinning as well as the action. Really refuting this rebuttal is difficult for at least two reasons. First, Wegner does not specify what the unconscious cause of action is, so his unconscious cause of action thesis is only a cheap existential claim: unspecific, easy to affirm and hard to falsify. Second, for falsifying such an unspecified claim one probably needs a detailed micro-physiological reconstruction of the real path of causation; and since present neurophysiology is not even able to locate the region of the physiological correlates of intentions with

some certainty,[7] such a reconstruction may still require decades. Until then the strongest possible critique of Wegner's model probably is to criticise its justification, i.e. to show that the model is not substantiated. The following section tries to provide such a critique of Wegner's justification.

4. The Illusion Theses' Relying on Libet

Wegner's (slightly corrected) model reproduces exactly what is inherent in Benjamin Libet's interpretation of his experiments on the unconscious preparation for action (and provides an amendment to it). Libet claims to have found that conscious (pre-actional) intentions to move one's hand or finger are preceded (by about 500 ms) by electric readiness potentials under the vertex (and the temples), which lead to the execution of the respective action if this execution is not stopped by a conscious veto by the agent. Libet interprets his empirical reconstruction in holding that the "decision" to act is already taken unconsciously, namely inherent in the readiness potentials, before the conscious intention is formed.[8] Libet's model can be summarised graphically as in figure 3 (taken from Lumer 2014: fig. 4 (= chapter 2 above)).

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[7] The neurophysiologist Susan Pockett e.g. in 2006 writes that "the initiation of movements has not yet been the specific subject of very much neuroscientific investigation." Continuing and resuming some research, she concludes: "Presumably, then, if the initiation of movements can be said to have a specific neural correlate at all, it must reside in one or more of the DLPFC, pre-SMA, SMA proper, basal ganglia, or primary sensorimotor cortex. There is a great deal of parallel processing in this region and the exact temporal order of activation of these areas when a movement starts is still controversial, but it is a reasonable assumption that activity flows from the prefrontal region (DLPFC) in a generally caudal direction to finish in the primary motor area. In between, it reverberates around at least five separate cortico-basal ganglia loops, all of which are probably active in parallel […]" (Pockett 2006: 14-15) This résumé sounds more like a sketch at the beginning rather than at the end of the research.

[8] Libet 1985: 529-539. – I discuss Libet's theory in this volume in chapter 2 (=Lumer 2014); chapter 1 (= Pauen 2014) contains a further discussion.

Fig. 3. Principal interpretation of Libet's main experiment: physical epiphenomenalism

→ = causation
i = forming of the intention
P(i) = physiological underpinning of the intention
a = action
r = onset of the readiness potential or other trigger of action

That Wegner's model is substantially the same (apart from his amendment) as Libet's can easily be seen by comparing the two figures, i.e. the graphical representation of Wegner's (slightly corrected) model (see figure 2) and the "physical epiphenomenalist" interpretation of Libet's experiment (see figure 3). The only new piece in figure 2 as compared to figure 3 is the addition regarding the explanation of the apparent mental causation and the experience of conscious will, i.e. the control experience; the part of the figure representing this addition is within the polygon (though, of course, "*a*" and "*i*", the correspondent of Wegner's "*t*", are already also parts of Libet's model). Another difference is that in Wegner's model Libet's "readiness potential" is replaced by the more open formula "unconscious cause of action". Wegner elaborates his addition (i.e. the part of figure 2 within the polygon) to Libet's physical epiphenomenalism by providing a fairly general psychological theory of human acquisition of causal knowledge (Wegner 2002: 68-95). This theory of the feeling and belief of conscious control is interesting and, I think, mostly correct. Like the above discussed basic idea of this theory, it is completely consistent with the traditional picture of human action, intention, freedom and responsibility. The only part of Wegner's model which challenges this traditional picture is not the addition but the piece it shares with Libet's model, i.e. what I have called "*physical epiphenomenalism*": The unconscious cause of action ($UC(a)$) is the common cause of action a and of the physiological basis ($P(t)$) of thought (t) or intention, where the latter or its physiological basis is *not* a cause of

action *a*. I have dubbed this "*physical* epiphenomenalism" because, according to this view, already the physical basis *P*(*t*) of the thought or intention is only an epiphenomenon of the real "decision" taken by the unconscious cause of action *UC*(*a*) and does not causally influence the course of action. In addition to physical epiphenomenalism, *mental epiphenomenalism* may also hold, i.e. the state of affairs that the intention's physical underpinning *P*(*t*) causes the intention or thought *t* but without this thought having any causal influence (as shown in figures 2 and 3). Whether or not mental epiphenomenalism is true is a vividly debated question but entirely independent of Wegner's and Libet's material and theory and, therefore, can be left open here. If mental epiphenomenalism were false and instead e.g. the identity theory true the arrow between "*P*(*t*)" and "*t*" in figure 2 and the arrow between "*P*(*i*)" and "*i*" in figure 3 would have to be replaced by equals signs – which would leave the *physical* epiphenomenalist relation between "*UC*(*a*)", "*P*(*t*)" and "*a*" in figure 2 as well as the respective relation between "*r*", "*P*(*i*)" and "*a*" in figure 3 unaltered. Physical epiphenomenalism would be very problematic for the initially sketched intentional-causalist conception of action and, as a consequence, even for (rationalist) compatibilist conceptions of responsibility and of freedom of decision if the unconscious cause of action were not itself caused by a sort of conscious deliberative process – which however Libet and Wegner implicitly take to be excluded – because it would exactly preclude a rational basis of our decisions and intentions.

Elsewhere (Lumer 2014: sect. 4 (= chapter 2, above)) I have extensively criticised Libet's justification of his theory, in particular his physical epiphenomenalism. Some major objections are: 1. Because of the many experimental complications it is still grossly unclear whether the intention *i* really follows or perhaps even precedes the readiness potentials and, therefore, cannot or can be the decisive cause. 2. We can say with reasonable certainty that what Libet declares to be an intention, "*i*" in figure 3, is not an intention but an urge to move, i.e. an occurrent desire to move which often is also felt in the respective limb as a sort of unrest. An urge to act can provoke a decision or the forming of an intention (for or against the action) but it is not an intention. Hence it is not clear where the real intention is. 3. Libet has not proved at all that the observed type of readiness potential, apart from the possibility of a veto, (quasi)

determines the action. The respective appearance is only a methodological artefact because Libet did not record readiness potentials after which no hand movement occurred. Experiments conducted by other scientists have shown that such readiness potentials are neither necessary nor sufficient for the respective movement. 4. Flexing one's finger or wrist in itself is a completely irrelevant action; and the leeway in decision making left in Libet's experiments – flexing one's finger now or somewhat later – does not contain any value differences that would make a deliberation and decision possible and worthwhile. Therefore, things may be quite different with really important actions, where a deliberation whose result is not determined by any readiness potential may occur. 5. Libet does not provide any theory about how complex decisions, which consider and integrate much information, can be taken. Architecturally, the vertex of the brain and the (pre-)motor cortex are not the right areas for providing this integration of information. Probably many areas of the cortex provide some of the necessary information, which has to be integrated in an area interconnected with many of them. This, however, fits to a rather traditional picture of intention formation.

Apart from this criticism of Libet's justification of physical epiphenomenalism, physical epiphenomenalism itself can be criticised as sketched in Lumer 2014 (sect. 6), e.g. by observing that physical epiphenomenalism cannot explain the finality, situational appropriateness and biographical continuity of complex behaviours. Because Wegner's model does not refer to intention / urges or to readiness potentials, it could, in theory, have resolved some of the problems of Libet's model – e.g. problems 2, 3, 4 and 5 of the just provided list. However Wegner's model does not help to solve them, already because it does not specify what the "unconscious causes of action" are. Nonetheless, Wegner could at least provide a new justification of physical epiphenomenalism with the help of his immensely rich material. However, he does not even do this. The new evidences he supplies relate to his theory of control experience (the polygon part of figure 2), not to physical epiphenomenalism; the only evidence he procures for the latter part of his model is his reference to – Libet (Wegner 2002: 49-55). Perhaps Wegner's reasoning is: There are lots of errors in our control experience, which show that the control experience is not a direct emanation of action control, i.e. of our intentions causing the action; therefore, this

direct control of our actions by our intentions does not exist. This, however, would be fallacious: If the control experience is not a direct emanation of action control this does not imply that there is no action control, i.e. that our intentions do not cause the respective actions. And if some – a not negligible share – of the agent's beliefs about his action control are false neither does this imply that in these particular cases there was no intention to cause the action and still less that actions in general are not caused by intentions. Finally, even if a part of the control beliefs is false this does not imply that the vast majority of them is false.

Another origin of Wegner's physical epiphenomenalism may be his picture and refutation of folk psychology. He writes that the experience of conscious will attributes magical power to the self because it does not have access to myriads of neural, cognitive or biological causes underlying our behaviour; therefore, we believe that our conscious thoughts, our volitions control our actions (Wegner 2008: 234). "The magic of self […] doesn't go away when you know how it works. It still feels as though you are doing things, freely willing them […]" (ibid. 236). Indeed, we cannot perceive intermittent processes between intending and acting. But, first, this does not mean that people believe that there are no such intermittent processes; even educated laymen by now have a neurophysiological idea of such processes and do not believe in Cartesian dualism. Second and above all, the existence of such intermittent processes or the fact that we do not perceive or know them by no means contradicts the claim that the intention or its physiological basis causes the action – what, however Wegner seems to believe –; indirect causation is something we cognise all the time. If someone, for example, presses the button of his TV remote control to switch on the TV, pressing the button is the cause of the appearance of pictures on the screen; and to initiate this causal process is exactly what the agent intends, though most of us have no precise idea of the causal path between the two events. As user interfaces are designed to cause complex effects by simple and accessible causes without having to worry about the intermittent underground, so our action-generating mechanisms make it possible to cause actions simply by intending them (cf. Dennett 2003: 248); not magic but excellent functioning, which empowers our ego.

These criticisms refute the justification of Wegner's empirical will thesis, but they cannot really disprove the thesis itself. However,

if we disregard the justification the intentional-causalist conception of action is by far the simpler theory, because it does without the "unconscious cause of action"; and it explains more and better, namely by referring to the deliberation, how actions can adapt so well to the situation and bring about positive effects. In such a situation the intentional-causalist conception of action, according to adequacy criteria from philosophy of science, is to be preferred over Wegner's model and in particular to his illusion of empirical will thesis.

5. Practical Consequences of the Constructivism of Our Control Experience

The upshot of this critique is that the evidence and arguments submitted by Wegner by no means prove the illusion of empirical will thesis, i.e. that intentions do not cause and control the respective behaviour. In this respect, his theory adds nothing to Libet's physical epiphenomenalism, the book is a big *ignoratio elenchi*, i.e. the reasons given entirely miss the claim to be proved. So, this part of Wegner's theory is no real challenge to the traditional picture of action, intention, freedom and responsibility.

However, what Wegner really substantiates is his theory of control experience, which among other things says that this control experience is inferential (a cognitive "construction"), that many actions and the explanatory reasons for them remain unconscious, hence unknown to the agent, and that the reasons by which she later explains or justifies her action can be false, ill-remembered, confabulations or rationalisations. This is a problem in our culture where giving and reflecting on reasons is an important part of our social exchange and of self-reflection. But, it is not really a completely new problem, only some aspects of Wegner's material are new; and we have learned to cope with this problem. First, most of our beliefs about our comprehensive intentions are probably correct. Wegner only reports the interesting but extreme cases, where our control beliefs go astray or are not there in the first place. Second, no judge and no jury simply accept a defendant's or witness's explanatory reasons, mostly, of course, because these reasons are suspected to be presented strategically but also because it is known that the persons' self-images are far from reliable. Judges

and juries (as well as psychologists and many laymen) know that the provided explanatory reasons have to be interpreted; and a whole industry of psychological and psychiatric expertise has developed to do exactly this. These experts will take Wegner's new results about the generation of control experience into consideration; this may change their inferences somewhat but probably far from revolutionising them. Third, reflected persons need to know their proper comprehensive intentions and real explanatory reasons in order to be able to understand themselves, to consider and reflect on and perhaps criticise their intentions and to change their motives, goals or decision strategies. Wegner's theory implies that it is much more difficult to obtain the respective self-knowledge than it appears. Another theoretical and practical consequence then is that a certain degree of theoretical knowledge about such inferential construction processes is helpful if not indispensable for obtaining this self-knowledge; otherwise our self-"knowledge" remains naive. This requires that a somewhat theoretical engagement with oneself, which is informed about the pitfalls of illusory beliefs, be part of an enlightened personality. However, this was already one of the lessons of psychoanalysis and of the psychotherapeutic movement among intellectuals. Wegner's theory does not make it necessary to change these insights about self-reflection in principle but it does add some important empirical knowledge about our psychic mechanisms to them.

6. Conclusion

All in all, Wegner has provided a rich theory of the sources and mechanisms of our control beliefs. Even though certain parts of this theory have been criticised elsewhere it does contain at least much valuable material for a definite theory on this matter. However, then Wegner goes on to use this theory for justifying his spectacular illusion of the conscious will thesis and implicitly also the illusion of empirical will thesis, which have attracted so much attention among the general public. These theses challenge the traditional, intentional-causalist concept of action because they imply that intentions (or their physical underpinnings) do not cause actions. However, the theses cannot withstand critical scrutiny; Wegner has provided nothing tenable to sustain that part of his model which

implies the two theses. (The only substantiation offered for these theses, namely Libet's theory of the unconscious preparation of intentions, is itself deeply flawed.) This refutation of the challenge is good news because it leaves the intentional-causalist concept of action valid and with it the traditionally conceived and enormously valuable basis of practical rationality, of freedom of decision and of attributing responsibility.

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