

The Missing Self in Hacking's Looping Effects. Forthcoming in *Mental Kinds and Natural Kinds*, H. Kincaid and J. A. Sullivan, eds. MIT Press.

## **The Missing Self in Hacking's Looping Effects**

### **Part I. Introduction**

Significant philosophical discourse has been dedicated to the ontological status of mental disorders.<sup>1</sup> The primary focus has been on whether mental disorders are natural kinds, i.e., whether they are similar to the kinds found in the non-human natural world, such as gold.<sup>2</sup> Ian Hacking argues that mental disorders are human kinds, differing from natural kinds insofar as they are subject to the looping effects of scientific classifications.<sup>3</sup> Mental disorders cannot be natural kinds precisely because being classified as having a mental disorder can bring on changes in the self-concept and behavior of individuals so classified. Such changes, in turn, can lead to revisions in the initial descriptions of mental disorders. Members of natural kinds, however, are not subject to such looping effects.

The phenomenon of looping effects is considered a compelling challenge to the claim that mental disorders are natural kinds and, as such, is discussed widely by both Hacking's followers and his critics. It is also widely resorted to by social scientists, especially those in critical disabilities studies, sociology and anthropology.<sup>4</sup> Yet the inherent complexity of the phenomenon has not been addressed, even by Hacking himself. In particular, the causal trajectory in which looping effects are generated and the way in which the subject responds to being classified remain unclear. Nor it is clearly understood how looping effects come about in the context of psychopathology. With a view to filling in some of these gaps, in this chapter, I note two connected shortcomings in Hacking's analysis of looping effects. First, his framework lacks an empirically and philosophically plausible account of the self to

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<sup>1</sup> See for example, Hacking 1986, 1995a, 1995b, 2007a, 2007b; Cooper (2004a, 2004b, 2007; Samuels 2009; Graham 2010; Zachar 2001.

<sup>2</sup> There is no uncontroversial definition of natural kinds (Cooper 2004a, 2004b). Philosophers who discuss whether mental disorders are natural kinds mostly work with specific examples from the natural kind family, such as water, gold, animals etc. (e.g., Hacking 1986; Cooper 2004a, 2004b; Khalidi 2010). I follow their lead in this chapter.

<sup>3</sup> Feedback effects and looping effects are used synonymously by both Hacking and his critics. Throughout this paper, I use the latter.

<sup>4</sup> For some examples, see Carlson (2010); also Stets and Burke (2003).

substantiate the complex causal structure of looping effects. Second, he fails to engage with the complexity of mental disorder in the consideration of this phenomenon in the realm of psychopathology. Once the complexity of the selfhood and the complexity of the encounter with mental disorders are considered, it becomes clear that the causal trajectory of looping effects is more complex than hitherto envisioned.

Hacking uses the phenomenon of looping effects to articulate a dynamic nominalism, according to which the scientific classifications of human phenomena interact with those phenomena, leading to mutual changes. In other words, there is an interactive causal trajectory between scientific classifications and the subjects classified. Instead of describing what looping effects are, in reference to the features of the subject classified and the features of scientific classifications, Hacking uses examples to illustrate them. He includes not only mental disorders but also other human phenomena that are subject to scientific research, such as obesity, child abuse, refugee status. With these examples, Hacking shows how scientific classifications may generate changes in a subject's self-conceptions and behavior. However, a full discussion of looping effects requires *both* an account of the way in which scientific classifications influence the subjects *and* an account of *how* and *why* the subject responds to being classified in the way she does. Such scrutiny requires recognition of what the self is, how self-concepts are formed and how behavioral changes are motivated. In addition, when the phenomenon of looping effects is considered in the context of psychopathology, this scrutiny requires recognizing the complexity of the ways in which mental disorder influences the subject. The encounter with mental disorder changes self-concept and behavior, and it is not easy – if indeed possible – to discriminate the influence of diagnosis of mental disorder on self-concepts and behavior from that of the mental disorder itself. The fact that the diagnosed subject changes her self-concepts and behavior not only in response to being classified but also in response to her encounter with mental disorder reveals that the causal net of looping effects is much more complex than Hacking envisions. To the extent that he discusses the self

(he seems to be using self/person/subject/soul interchangeably),<sup>5</sup> he is informed by a simplified account of personhood, which situates the subject somewhere between genetic and neurobiological dispositions and freedom of choice. Hacking neither offers an account of mental disorders nor embraces the complex ways in which they shape people's self-concepts and behavior. Due to his superficial treatment of the self and mental disorder, he fails to make explicit the necessary and sufficient conditions for looping effects to be generated. This caveat makes his account the target of several partially successful criticisms.<sup>6</sup>

In this chapter, I offer a close reading of Hacking's work looping effects, evaluating his early and later works. Focusing primarily on the first arc of looping effects, i.e., how scientific classifications influence the subject classified, I show how he overlooks the complexities of the self and mental disorder. I then offer a model of the self, which I term the multitudinous self that substantiates the phenomenon of looping effects. To do so, in Part II, I expand on Hacking's work on looping effects and emphasize his dynamic nominalism – the key to understanding the features of looping effects. In Part III, I focus on his application of looping effects to mental disorders. In Part IV, I zoom in on Hacking's discussion of the self and indicate its superficiality. In Part V, I posit multitudinous self, a philosophically and empirically plausible model of the self that substantiates the complexity of looping effects in the context of psychopathology. This model of the self, I point out, can help scientific research programs to taxonomize mental disorders and can facilitate successful interventions into the lives of those with mental disorders, allowing them to flourish.<sup>7</sup> Thus, with the multitudinous self, I advocate a new style of reasoning about mental disorders in philosophy of psychiatry.

## **Part II. Dynamic Nominalism and Looping Effects**

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<sup>5</sup> For an example, see Hacking (2004).

<sup>6</sup> See for example, Cooper (2004a, 2004b); Khalidi (2010).

<sup>7</sup> Tekin (2011, 2010).

The phenomenon of looping effects is the linchpin of a series of works on what Hacking calls “making up people,” which point to the way in which a new classification made by human sciences may bring a new kind of person into being.<sup>8</sup> Looping effects have a double arc. The first is the influence of classifications on those so classified, and the second is the ways in which some of those who are classified – and altered – modify the systems of classification. Some people with mental disorders (e.g. multiple personality and schizophrenia) are subject to the looping effects of psychiatric classifications; but looping effects are not restricted to the domain of mental disorders. Other examples Hacking uses include women refugees, pregnant teenagers, child abusers, the obese and, the genius.<sup>9</sup>

Hacking’s dynamic nominalism is the metaphysical scaffolding for the phenomenon of looping effects; he explores “making-up people” by applying the realism versus nominalism debate to human phenomena.<sup>10</sup> The fundamental question in this debate is whether there is anything in reality that corresponds to universals, or whether there are only particulars. Realists accept universals into their ontology as mind-independent objects, i.e., they believe that universals are given by nature and exist independently of any perceiving human mind. Nominalists, on the other hand, argue that there are no universals, and they are not to be included in our ontology. All that exists are particulars, and it is human convention that individuates particulars, according to human interests. Hacking applies this query to what he labels human kinds, e.g., kinds of human beings, their embodiment, character, emotions etc.<sup>11</sup> He asks whether human kinds are given by nature, sorted and categorized independently of human intellect, or whether they are artifacts of human conventions. Does our naming, conceptualizing, and classifying individuate phenomena in the human world? Or are human kinds determined by nature prior to our ordering them? Hacking’s traditional “static nominalist” would deny the existence of a mind-

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<sup>8</sup> Hacking (1986, 1995a, 1995b, 1999, 2004, 2007a, 2007b).

<sup>9</sup> Hacking (1986, 1995a, 1995b; 2007a, 2007b).

<sup>10</sup> Although it is crucial to understanding the notion of looping effects, Hacking’s critics have not discussed this metaphysical framework (e.g., Cooper 2004a, 2004b; Khalidi 2010)

<sup>11</sup> Hacking (1995b)

independent world sorted into neat categories,<sup>12</sup> holding that all classifications, taxonomies and classes are imposed by human conventions, not by nature. Over time, these categories become fixed. The traditional realist, in contrast, is committed to the idea of a naturally ordered world; as science progresses, we come to recognize and name pre-given categories. These categories are independent from humans; we discover them through science.<sup>13</sup>

Hacking's dynamic nominalism is situated somewhere between traditional realism and static nominalism. He believes that "many categories come from nature, not from the human mind."<sup>14</sup> However, these categories are not static, because the acts of sorting out, naming and classifying influence the individuals classified in those categories:

The claim of dynamic nominalism is not that there was a kind of person who came increasingly to be recognized by bureaucrats or by students of human nature, but rather that a kind of person who came into being at the same time as the kind itself was being invented. In some cases, that is, our classifications and our classes conspire to emerge hand in hand, each egging the other on.<sup>15</sup>

Dynamic nominalism, situated as it is between traditional nominalism and realism, tracks interactions over time between the phenomena of the human world studied by the human sciences and the classifications of these phenomena. It is "realism in action," for Hacking, because "real classes of people" are sorted in new and specific ways; "making and moulding people as the events were enacted."<sup>16</sup> Another way of making sense of dynamic nominalism is thinking of it as "dialectical realism," as Hacking points out. Kinds of individuals come into being as an outcome of the dialectic between classifications and the classified. The naming of individuals as an outcome of scientific inquiry "has real effects on people," and such changes in people have "real effects on subsequent

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<sup>12</sup> Hacking (1986, 1995b).

<sup>13</sup> Hacking (1986, 228).

<sup>14</sup> Hacking (1986, 228).

<sup>15</sup> Hacking (1986, 228).

<sup>16</sup> Hacking (2004, 280).

classifications.” This phenomenon, for Hacking, can be captured neither by “an arid logical nominalism” nor by a “dogmatic realism.”<sup>17</sup>

Hacking appeals to dynamic nominalism not only to elaborate on how sciences carve out human phenomena, but also to consider the implications of the study of human phenomena on the “possibilities of personhood.”<sup>18</sup> Descriptions of human kinds influence the self-reflection of those human beings being described. Put otherwise, creating new ways of classifying people changes the subjects’ epistemic and moral relations with themselves, including their self-concepts and self-worth. New ways of classifying even changes how these subjects remember their own past.<sup>19</sup> Hence, for Hacking, whenever philosophers think about persons as particulars, they “must reflect on this strange idea, of making up people.”<sup>20</sup>

It is important to emphasize that even though dynamic nominalism provides the metaphysical scaffolding, there is no “uniform tale” or “general story to be told about making up people”:<sup>21</sup>

If we wish to present a partial framework in which to describe such events, we might think of two vectors. One is the vector of labeling from above, from a community of experts who create a “reality” that some people make their own. Different from this is the vector of autonomous behaviour of the person so labeled, which presses from below, creating a reality every expert must face.<sup>22</sup>

Although Hacking acknowledges the necessity to attend to both the scientific labeling from above, and individual’s response from below, in making sense of looping effects, I argue his primary focus is on how human sciences influence and change the subjects they study. This is evident in his strategy to explain the phenomenon of looping effects: in accordance with his dynamic nominalism, he provides a plethora of examples to illustrate how human sciences generate changes in the individuals they study. However, as I show in Part III, his analysis of how the self – the subject of scientific study – responds to being classified remains superficial.

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<sup>17</sup> Hacking (2004, 280).

<sup>18</sup> Hacking (1986, 230).

<sup>19</sup> Hacking (1995b, 369).

<sup>20</sup> Hacking (1986, 230).

<sup>21</sup> Hacking (1986, 233).

<sup>22</sup> Hacking (1986, 234).

Let me turn to Hacking's understanding of how human sciences induce changes in the subjects they study. The goal of these sciences is to acquire systematic, general, and accurate knowledge about puzzling and idiosyncratic phenomena pertaining to human beings in "industrialized bureaucracies," e.g., suicide, child abuse, multiple personality, obesity, refugee status. They seek to attain "generalizations sufficiently strong that they seem like laws about people, their actions, or their sentiments," so that helpful interventions can be made.<sup>23</sup> Unlike the objects of inquiry in natural sciences, the subjects of human sciences, i.e., human kinds, respond to how they are classified. Hacking demarcates between human and natural kinds by noting that human kinds are subject to looping effects due to the "self-awareness" of at least some of those classified:<sup>24</sup>

Responses of people to attempts to be understood or altered are different from the responses of things. This trite fact is at the core of one difference between the natural and human sciences, and it works at the level of kinds. There is a looping or feedback effect involving the introduction to classifications of people. New sorting and theorizing induces changes in *self-conception* and in *behaviour* of the people classified. Those changes demand revisions of the classifications and theories, the causal connections, and the expectations. Kinds are modified, revised classifications are formed, and the classified change again, loop upon a loop.<sup>25</sup>

Hacking's best-known example of looping effects is multiple personality. Through this example, elaborated upon in the next section, the discussion of looping effects enters philosophical discussions of psychopathology, challenging the view that mental disorders are natural kinds.

### **Part III. Mental Disorders and Looping Effects**

Hacking uses multiple personality as a "microcosm of thinking-and-talking about making-up people."<sup>26</sup> He wants to understand how "the sciences of the soul," in their attempts to make the soul an

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<sup>23</sup> Hacking (1995b, 352).

<sup>24</sup> Two other traits distinguish human kinds from natural kinds. First, human kinds pertain to certain people and behaviors at a particular time, in a particular social setting, while natural kinds refer to the same kinds at all times. Second, human kinds are laden with social values, e.g., schizophrenia is a mental condition that is "bad" and is to be "healed." Natural kinds are value neutral, e.g., mud is not intrinsically good or bad (Hacking 1995b, 367).

<sup>25</sup> Hacking (1995b, 370, emphasis mine).

<sup>26</sup> Hacking (1995a, 5).

object of scientific query, make up people.<sup>27</sup> Thus, he is interested in the soul/subject/self/person<sup>28</sup> insofar as the soul is the *object* of scientific study; he does not consider the soul as a *subject*, i.e., he does not delve into what it is about the self that is prone to being made up.<sup>29</sup> This poses a problem concerning the details of the mechanism of the first arc of the looping effects, namely, what it is about the subject that makes her amenable to changing her self-concepts and behavior after being classified.

In Hacking's view, the popularity of the phenomenon of multiple personality among philosophers in the late 1980s and the 1990s stemmed from the challenges it posed to widely accepted conceptions of the self. Simply stated, it "refute[d] the dogmatic transcendental unity of apperception that made the self prior to all knowledge."<sup>30</sup> Hacking observes that the symptoms that characterize multiple personality disorder changed over time, as knowledge of the illness entered popular culture under the combined influence of curious psychiatrists, TV show producers, and alliances of patients. As Hacking sees it, those diagnosed with multiple personality start displaying different symptoms as they learn more about the illness and its manifestations in different individuals through popular culture, in a way that fits the popular descriptions of this condition. The changes in the symptoms they display, in turn, alter the classification of multiple personality. The following is a formulation of how looping effects are manifest in those with multiple personality:

PM1: Psychiatry (as a human science) acquires systematic knowledge (K1) about human subjects (S1) who exhibit alternating personalities that are amnesic to one another. K1 picks out the perceived law-like regularities about S1 (e.g., alternating personalities).

PM2: Based on K1, psychiatry forms classifications (CL1) of S1, labeling S1 "persons with multiple personality."

PM3: At least some individuals with multiple personality become aware of their categories, as K1 is disseminated in popular culture through the combined impact of psychiatrists, TV show producers, alliances of S1a and so on.<sup>31</sup> (S1a), informed by K1, change their (b) *behavior and* (c) *self-concepts*.

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<sup>27</sup> Hacking (1986, 1995a, 1995b).

<sup>28</sup> As noted above, he uses the self/soul/person/subject interchangeably, and I follow his lead.

<sup>29</sup> Tekin (2010, 2011).

<sup>30</sup> Hacking (1986, 224).

<sup>31</sup> Hacking (1999, 106).

PM4: The awareness of being classified, the changes in the *behavior* and the changes in the *self-concepts* of those classified (S1a) amount to changes in the perceived regularities about these people. S1a, different from S1, starts to feature new symptoms; e.g., they exhibit animal personalities.

PM5: Changes in the perceived regularities of S1a lead to changes in knowledge (K1) about their classifications (CL1), because S1a no longer fits the criteria for CL1.

CM: Thus, classification of some people as “people with multiple personality” results in the creation of new knowledge (K1a), new classifications (CL1a) and new kinds of people (S1a) (e.g., according to K1a, people with multiple personality may exhibit animal personalities).

Hacking’s claim that looping effects are not manifest in natural kinds is challenged by those who advance what I call the Parity Argument (PA), according to which there are looping effects in natural kinds comparable to those observed in human kinds, and the interaction between classifications and individuals is not exclusive to the human or social realm.<sup>32</sup> Proponents of PA suggest that our classificatory practices result in looping effects that alter some natural kinds, such as the influence of being classified as harmful on microbes, the influence of legal bans on the shape of marijuana, the influence of selective breeding on animals, and the influence of training on the domestication of dogs.<sup>33</sup> Corollary to PA is the failure of Hacking’s claim that mental disorders are not natural kinds; if looping effects are not exclusive to human kinds but also are exhibited by natural kinds, it would be plausible to argue that those with mental disorders who exhibit looping effects can also be considered natural kinds.<sup>34</sup>

Hacking, in his early writings, apparently foreseeing such objections, attempts to clarify precisely what is unique about the looping effects in human kinds. He emphasizes, through different examples, that in the case of human kinds, because subjects are “aware” of “what we are doing to them,” they are influenced by our “descriptions,” and they change their self-concepts and behavior accordingly.<sup>35</sup> However, he is not consistent in his emphasis on the changes that occur in a subject after

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<sup>32</sup> See Bogen (1988); Khalidi (2010); Cooper (2004a, 2004b).

<sup>33</sup> (Bogen 1988, Cooper 2004a, 2004b; Khalidi 2010; Douglas 1986).

<sup>34</sup> Cooper (2004a, 2004b)

<sup>35</sup> Hacking (1999, 106).

being classified. In particular, in some examples he postulates “being aware of being classified,” “changes in self-concepts,” and “changes in behavior” as individually sufficient changes that need to occur in the subject to generate looping effects (e.g., women refugees), while in others, all three are construed as jointly necessary changes for the looping effects (e.g., multiple personality). This inconsistency obscures his discussion of looping effects; it remains unclear whether these three variables are individually sufficient or jointly necessary for the looping effects to be generated. In his later writings, he adds new elements to the causal trajectory of the looping effects, but it remains unclear how and why the subject responds to being classified in the way she does.

In his early work, Hacking takes into account that the scientific classification of certain microbes as harmful and the resulting interventions influence these microbes. Such influence, however, is different from the influence of being classified on people:

Elaborating on this difference between people and things: what camels, mountains, and microbes are doing does not depend on our words. What happens to tuberculosis bacilli depends on whether or not we poison them with BCG vaccine, but it does not depend on how we *describe* them. Of course we poison them with a certain vaccine in part because we describe them in certain ways, *but it is the vaccine that kills, not our words*. Human action is more closely linked to human description than bacterial action is.<sup>36</sup>

Hacking emphasizes here that in addition to the “intervention” facilitated by the classifications of human sciences, our “descriptions” guide subjects’ self-directed feelings, concerns and actions, generating changes in their self-concepts and behavior. Natural kinds, on the other hand, are not subject to such looping effects: our words do not lead to changes in the self-interpretations of natural kinds; it is our interventions, *qua* classifications, that change them.

Elsewhere, Hacking develops this idea when he argues that naming and classifying, in and of themselves, do not make a difference in natural kinds: “the mere formation of the class, as separable in

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<sup>36</sup> Hacking (1986, 230, emphasis mine).

the mind, and in language, our continuing use of the classification, our talk about it, our speculation using the classification, does not ‘of itself’ have the consequences.”<sup>37</sup> To this, he adds:

If N is a natural kind, and Z is N, it makes no direct difference to Z, if it is called N. It makes no direct difference to either mud or a mud puddle to call it ‘mud.’ It makes no direct difference to thyrotropin releasing hormone or to a bottle of TRH to call it TRH. Of course seeing that the Z is N, *we may do something to it* in order to melt it or mould it, or drown it, breed it, barter it...*But calling Z, N, or seeing that Z is N, does not, in itself make any difference to Z.* If H is a human kind and A is a person, then calling A H may make us *treat* A differently, just as calling Z N may make us do something to Z. We may reward or jail, instruct or abduct. But it also makes a difference to know that A is an H, precisely because there is so often a *moral connotation to a human kind*. Perhaps A does not want to be H! *Thinking of me as an H changes how I think of me.* Well, perhaps I could do things differently from now on. Not just to escape opprobrium (I have survived unscathed so far) but because I do not want to be that kind of person. *Even if it does not make a difference to A it makes a difference to how people feel about A – how they relate to A – so that A’s social ambiance changes.*<sup>38</sup>

Note that in the above citations, Hacking emphasizes how the classification (or naming) changes the subject’s epistemic and moral relations with herself. In other words, the category (the outcome of scientific query) into which the subject is placed, leads her to reflect on and judge herself differently. Being classified as A changes how she “thinks” about herself and her “self-worth.” Such self-related epistemic and moral changes are generated through the scientific knowledge of the categories and are mediated *qua* self and *qua* others (who share the same cultural and linguistic community). Thus, in human kinds, naming and classifying *qua*-self and *qua*-others change the person. But natural kinds change only when naming and classifying lead to interventions.

Consider Hacking’s response to a PA proponent, Mary Douglas.<sup>39</sup> Douglas, arguing for looping effects in microbes, suggests that microbes adapt themselves to the attempts to eradicate them (based on our classifying them as harmful) by mutating to resist antibacterial medications.

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<sup>37</sup> Hacking (1992, 189-190).

<sup>38</sup> Hacking (1995b, 367-368, emphasis mine).

<sup>39</sup> Hacking (1986, 100-102).

This, in turn, eventually results in the modification of the classification scheme. To this argument,

Hacking responds:

My simple-minded reply is that microbes do not do all these things because, either individually or collectively, *they are aware of what we are doing to them*. The classification microbe is indifferent, not interactive.”<sup>40</sup>

Hence, emphasizing the subjects’ “awareness” of “what we are doing to them” and the change in their self-concepts and behavior is Hacking’s way of distinguishing human kinds from natural kinds.

However, he is not consistent in his emphasis on the “awareness” of being classified as a necessary condition for the generation of looping effects. Consider the following point about women refugees:

A woman refugee may learn that she is a certain kind of person and act accordingly. Quarks do not learn that they are a certain kind of entity and act accordingly. But I don’t want to overemphasize the awareness of an individual. Women refugees, who do not speak one word of English, may still, as part of a group, acquire the characteristics of women refugees precisely because they are so classified.<sup>41</sup>

Hacking presents women refugees’ inability to speak English as a detriment to the degree they are “aware” of their labels and to the extent of the knowledge they acquire about their categorizations. Yet lack of awareness or limited access to knowledge about their labels does not prevent them from “acquiring the characteristics” associated with their category. How refugee women acquire these characteristics is not clearly articulated by Hacking, but it appears to be closely connected to their social cognition. A plausible explanation may go as follows. A refugee woman's interactions with others, who treat her as such, may lead her to change how she operates in the world and shape her behavior in a way that fits the label “women refugee.”<sup>42</sup>

Proponents of PA, in developing the claim that natural kinds may be subject to the looping effects that Hacking attributes to human kinds, point out the ambiguity in Hacking’s notion of

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<sup>40</sup> Hacking (1999, 106).

<sup>41</sup> Hacking (1999, 32).

<sup>42</sup> Changes in behavior are explainable as the outcome of “socialization,” a concept used in social psychology and sociology that is broadly defined as the way in which individuals are guided in becoming members of a social group. During their socialization, individuals conceptualize cultural knowledge like any other social information; they acquire, maintain, and apply these cognitive conceptualizations in their cognition and behavior (Kesebil, Uttal, Gardner 2010). The effects need not be conscious; indeed, they are often automatic. Women refugees may go through such socialization and unconsciously and automatically adapt to their labels.

“awareness” and discuss whether it is a necessary condition for looping effects to be generated. For instance, Muhammad Ali Khalidi, a PA proponent, looks at Hacking’s discussion of women refugee example.<sup>43</sup> For Khalidi, this example is a testament to the idea that awareness is not a necessary causal variable in the trajectory of looping effects. Thus, “awareness of being classified” does not demarcate human from natural kinds. Rachel Cooper, another PA proponent, also considers Hacking’s emphasis on awareness. She suggests that awareness of being classified in itself does not show that human kinds cannot be natural kinds, because as it stands, Hacking’s discussion merely shows that “human kinds are affected by a mechanism to which other kinds of entity are immune.”<sup>44</sup> Although this indicates a difference between human kinds and other kinds, she does not take it to be fundamentally significant because “many other types of entity can be affected by mechanisms to which only entities of that type are vulnerable.”<sup>45</sup> In other words, PA proponents conclude that awareness of being classified is not necessary for generating looping effects; thus, natural kinds can exhibit looping effects.

I will not develop it here in detail but in my view, PA proponents are seeking to deflate Hacking’s emphasis on the subject’s awareness of classification and the changes in her self-concepts upon being diagnosed. In particular, PA proponents neglect “the changes in self-concept” in Hacking’s premises (PM3, PM4), taking the classification-induced changes in the subject to be primarily changes in behavior and interpreting these as culminating in “alterations in the kind.” But Hacking himself fails to stress their importance: he does not offer a clear account of what a self-concept is, how self-concepts are formed or how exactly being labeled in a certain way changes a subject’s self-concepts. In addition, as the PA proponents rightly point out, Hacking is ambiguous about whether awareness of being classified is a necessary variable in looping effects. While I agree with the claim that natural kinds are subject to some feedback effects, I contend that the types of causal loops exhibited in natural and human kinds, especially in the case of psychopathology, are significantly different from each other due to the

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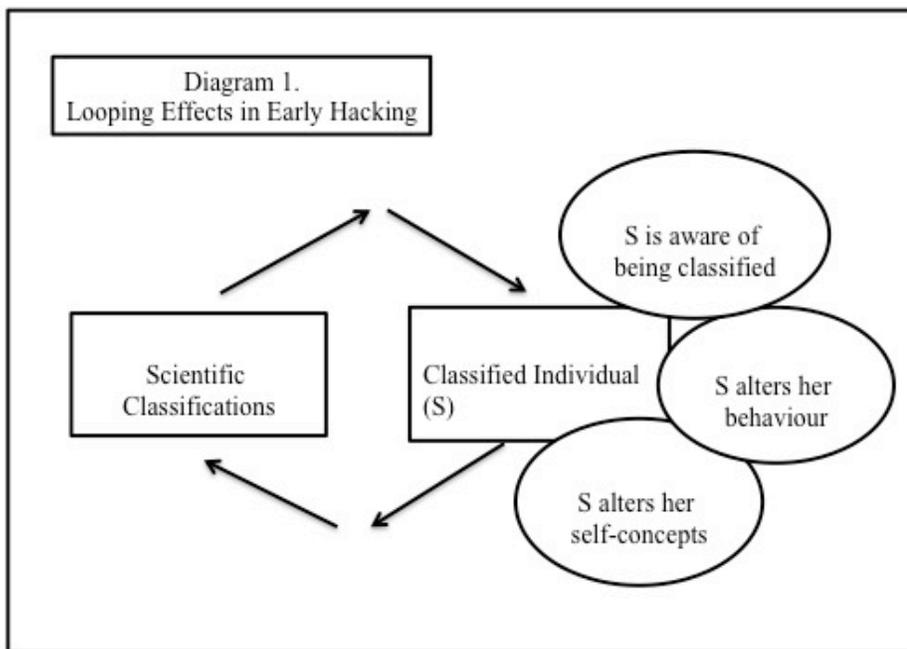
<sup>43</sup> Khalidi (2010).

<sup>44</sup> Cooper (2004a, 79).

<sup>45</sup> Cooper (2004a, 79).

complexity of selfhood and the complexity of the encounter with mental disorders. Once the shortcomings of Hacking’s account are remedied by including an empirically and philosophically plausible model of the self to the trajectory of looping effects (see Part V), the types of differences between causal loops in natural kinds and those with psychopathology are explicit.

Diagram 1 summarizes the causal web of looping effects in early Hacking. Scientific classifications influence and alter the self-concepts and behavior of those classified; this, in turn, influences and alters the initial classifications.



My main concern with this framework is Hacking’s reduction of the subject/soul/person/self to “classified person.” Even when he considers the subject’s awareness of her label and the alterations in

self-concept and behavior, he does not offer a detailed scrutiny of the self – the subject of classification. He does not explain what is involved in subjects’ being “aware of what we are doing to them,” or how people are influenced by “our descriptions of them” and change their self-concept and behavior accordingly. Is it a rudimentary level of awareness, or is it reflective and more elaborate? What motivates changes in self-concepts and behavior?<sup>46</sup>

In fact, Hacking’s treatment of the “classified person” is superficial. This superficiality is problematic, especially when the phenomenon of looping effects is used in the context of psychopathology, as the subject of classification (or the clinical diagnosis) is also the subject of the mental disorder. In particular, the following three questions remain unanswered. First, how much of the change in the subject’s self-concepts and behavior is connected to the knowledge she receives about the diagnosis? Second, how much is connected to the particular mental disorder to which she is subject? For instance, if the mental disorder is disruptive of her “awareness” and connected capacities for self-reflection, we need to take this into account. Anosognosia in schizophrenia is a good example, as I note in due course. Third, how much of the change in the subject’s self-concepts and behavior is connected to the clinical “treatment” she receives from mental health professionals upon diagnosis? It is hard to isolate these, as changes in the subject can be connected to a few, none, or all factors. Answers require a detailed scrutiny of the self and a close examination of the mental disorder. Although Hacking fails to consider these questions, they have important implications to understanding what looping effects actually are.

In his later work, Hacking partially responding to PA, advocates the abandonment of the notion of “natural kind” altogether and offers a framework within which to understand looping effects. In this latter discussion of looping effects, the causal net is wider; it includes, not only the classifications and the individuals classified, but also experts, institutions, and knowledge as key generators of looping effects.

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<sup>46</sup> Some of these challenges are raised by PA proponents, as discussed above. See Khalidi (2010) for an overview.

Consider first his abandonment of the concept of natural kind.<sup>47</sup> He argues that there are now so many radically incompatible theories of natural kinds that the concept has self-destructed. Some classifications, he suggests are “more natural than others, but there is no such thing as a natural kind.”<sup>48</sup> This is not to say that there are not kinds in the world, but the idea of a well-defined class of natural kinds is obsolete.<sup>49</sup> The sheer heterogeneity of the paradigms for natural kinds, for Hacking, invites skepticism.<sup>50</sup> Calling something a natural kind no longer adds new knowledge; rather, it leads to confusion:

Take any discussion that helps advance our understanding of nature or any science. Delete every mention of natural kinds. I conjecture that as a result the work will be simplified, clarified, and be a greater contribution to understanding or knowledge. Try it.<sup>51</sup>

Corollary to this change, Hacking no longer employs the term human kind when referring to human phenomena studied by the human sciences. Instead, he writes exclusively about the causal net of looping effects and instances of making up people, continuing to illustrate the phenomenon with examples.<sup>52</sup> He proposes a “framework for analysis” to understand the *kinds of people* studied by human sciences. In this new framework, the looping effects no longer occur on the two axes previously noted: *classifications made by human sciences* and *people so classified*. Rather, they occur between five axes, including the *experts* who classify, study, and help people classified, and the *institutions* within which the experts and their subjects interact. Additionally, there is an evolving body of *knowledge*<sup>53</sup> about the people in question, as well as *experts* who generate the knowledge and apply it in their practice. The interaction between these five elements leads to changes in individuals’ self-concepts and behavior, as well as to changes in each component of this causal network, which, in turn, change the classifications.

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<sup>47</sup> Hacking (2007a, 2007b).

<sup>48</sup> Hacking (2007b).

<sup>49</sup> Hacking (2007b, 205).

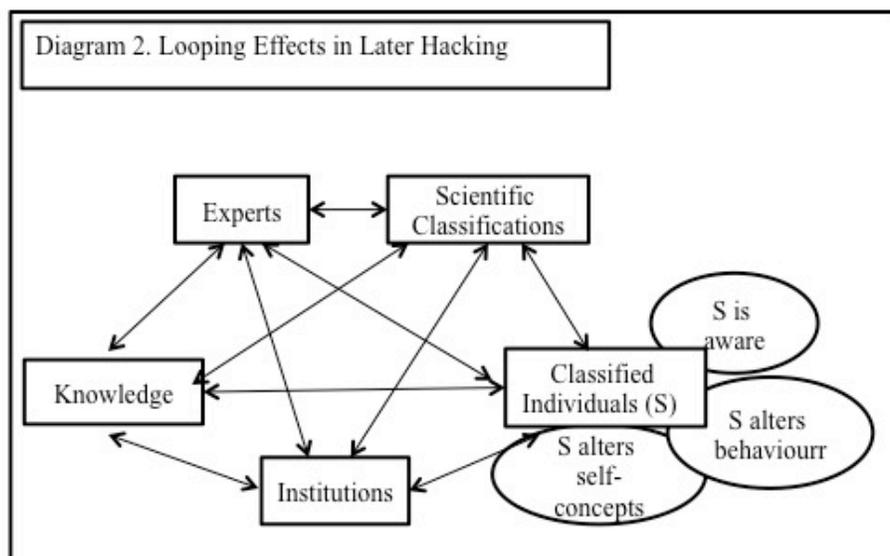
<sup>50</sup> Hacking (2007b, 207).

<sup>51</sup> Hacking (2007b, 229).

<sup>52</sup> Hacking (2007a).

<sup>53</sup> By “knowledge,” he does not have in mind traditional epistemology’s “justified true belief” but rather a Popperian conjectural knowledge.

Thus, while in his earlier writings, Hacking focuses on how classifications lead to the alterations in self-concept and behavior of persons, in the new and more complex framework, the other three elements are equally responsible. He points to the experts involved in the research on human phenomena, and the connected interventions, arguing that by their engagement in these activities, they influence the subjects they study. Similarly, the institutional framework within which these subjects are studied or helped also influence the subjects' self-concepts and behavior. Finally, the knowledge generated in this process is a mediator of change.<sup>54</sup> Thus, the causal net of looping effects, according to this new framework, is much wider. See Diagrams 2 below for an illustration.



Hacking's later framework is more responsive to how human sciences may generate changes in people's self-conception and behaviour, with the inclusion of the instruments through which these

<sup>54</sup> The influence of knowledge is discussed in early Hacking, but in his later work, he makes this influence more explicit.

changes are mediated. However, Hacking still does not explain what it is that about the individual that makes her respond to being studied in the way she does. Hacking continues to overlook the complexities of the “classified people” and the complexities of mental disorders they are subject to. The three questions raised above remain unanswered. It is still not explicit (i) how much of the changes in the subject’s self-concepts and behavior are connected to the knowledge she receives about the diagnosis; (ii) how much of such changes are connected to her particular mental disorder; and (iii) how much of the changes in her self-concepts and behavior are connected to the clinical treatment she receives upon diagnosis. In other words, the course of illness and the influence of treatment remain excluded from the causal net of looping effects.

Let me illustrate with a paradigm case why these three questions are important. This case, depicting the complexity of looping effects, exemplifies why we need to know the complexities of selfhood and the complexities of mental disorders to understand how, why, and when looping effects occur.<sup>55</sup> Karl is a 26-year-old student working on a doctorate in music. He is known as a nice and respectful person. Although he is usually quiet, he opens up when he gets to know people. In his spare time, he teaches piano to children. He has two roommates. His dog has been with him since his early 20s. While studying for his PhD comprehensive exams, he starts to hear voices and see horrifying images. The voices are loud; they order him to do things he does not want to do, such as hitting the walls of his bedroom. He sees flames burning in his surroundings. He is unable to sleep. He talks to himself in an attempt to quiet the voices in his head. He is confused. Due to these orientational obstacles connected to his condition, he behaves differently at home and at school: he does not talk to his roommates and ignores the walking hours of his dog. Karl sees a specialist. After a few visits, the specialist decides that his symptoms are best individuated with the diagnosis of schizophrenia; she prescribes a kind of

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<sup>55</sup> The example of Karl is informed by various memoirs of schizophrenia (e.g., Saks 2007) in a bid to show the complexity of mental disorder experience, something neglected by Hacking.

medication that, in her experience, is effective in reducing/completely removing hallucinatory symptoms.

Interrelated sets of conceptual and behavioral changes happen in Karl upon the diagnosis – the starting point of Hacking’s looping effects. As Karl’s illness unfolds, he continues to hear voices and talk to himself, but the visual hallucinations diminish with the help of the medication. The immediate changes are mediated by his illness; his treatment influences how he behaves and how he conceives himself. For instance, after noticing people’s questioning looks when he is caught talking to himself, Karl spends less time in public spaces. For similar reasons, he stops giving piano lessons. His medication has side-effects, leading to more changes in his behavior: he sleeps too much and keeps his hands in his pockets to prevent them from shaking. The course of his illness and the treatment he receives also lead to alterations in his self-concepts. He used to consider himself a healthy person, fairly social, and a good dog-owner; now he considers himself ill and socially isolated, and contemplates giving his dog away as he is unable to care for him.

The knowledge he gains about his mental disorder, as well as the stereotypes associated with it, also motivates changes in his self-concepts and behavior. He surfs the internet, he consults books, and he reads the blogs and personal writings of other patients. He learns about aspects of his illness to which he was previously blind. After learning, for instance, that some schizophrenics have poor hygiene, he over-attends to his personal hygiene, to the extent that he annoys his roommates. Having encountered stereotypical representation of people with schizophrenia in the media about their inability to hold a job, he becomes skeptical of his ability to finish graduate school.<sup>56</sup> He considers leaving graduate school, fearing that he is not well-suited to becoming an academic. Yet at times, he wants to continue. He is confused.

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<sup>56</sup> There is considerable evidence that stigma robs people with mental disorders of work, independent living, and important life opportunities (Corrigan, Edwards, Green, Diwan, and Penn 2001; Farina 1998; Farina and Felner 1973; Phelan, Link, Stueve and Pescosolido, 2000). Further, self-stigma may lead to impoverished self-esteem and self-efficacy (Corrigan and Holzman 2001; Corrigan and Lundin 2001; Wahl 1999).

Note that the changes Karl undergoes upon diagnosis are associated with (i) the knowledge he gains about his illness (including professional and cultural conceptions, as well as stereotypes), (ii) the course of his illness, and (iii) the clinical treatment he receives. Hacking's looping effects, applied to psychopathology, primarily targets (i). As cited above, Hacking suggests that changes occur in the subjects due to their awareness of being classified, and that "new sorting and theorizing induces changes in *self-conception* and in *behavior* of the people classified." In so suggesting, he takes knowledge about categories to be fundamental to the subject's changes. However, in the example above, the changes in Karl's self-concepts and behavior after diagnosis are not just mediated by (i), the knowledge Karl receives about his illness, but also by (ii), the course of his illness, and (iii), the psychiatric treatment he receives. It is difficult, therefore, to discriminate the influence of (i), (ii), and (iii) on Karl's self-concepts and behavior. If changes in the subject, i.e., "awareness of being classified," "changing self-concepts," and "changing behavior" are the fundamental generators of looping effects, Hacking must explain what precisely leads to these changes. The course of the mental disorder and the treatment the subject receives are as influential as her knowledge of the illness.

Nor does Hacking's addition of new elements to the complex causal structure of the looping effects in his more recent work answer these questions. While the explicit articulation of the interaction between institutions, experts, and knowledge, along with their separate and combined influence on the subject's self-concepts and behavior, shows that the causal net of looping effects is wider and more complex than originally envisioned, it remains unclear how and why the subject responds to these factors in the way she does. Hacking continues to consider the subject of human sciences as the "classified individual," and overlooks the complexity of the self that is subject to a mental disorder. To account for precisely how and why self-concepts and behavior may change upon diagnoses, he needs to take into account (ii), the course of the illness, and (iii), the subject's clinical treatment, not just (i), the knowledge the subject acquires about the illness.

These three questions can be answered by including the complexity of the self in the causal net of looping effects because the self is the *subject* of mental disorder, diagnosis, and treatment. The self is the agent of “awareness,” as well as the agent of the changes in self-concept and behavior – the three causal variables of looping effects. It is also necessary to acknowledge the complexity of the subject’s mental disorder. In Part V, I flesh out these contentions by including an empirically and philosophically plausible model of the self in its causal trajectory.

#### **Part IV. The Self/Soul/Subject/Person in Hacking**

Arguably, I am overstating my case, as Hacking did, in fact, albeit infrequently, write about selfhood. Be that as it may, my claim that Hacking’s “classified individual” does not depict the complexity of selfhood is supported by his writing.<sup>57</sup> In “Between Michel Foucault and Erving Goffman: Between Discourse in the Abstract and Face-to Face Interaction” Hacking discusses his view of “making up people.” Here, he clarifies his notion of “personhood,” while developing his view that human sciences, in their classifications of people, their actions, and their sentiments, generate looping effects and make up new people. Hacking writes, and I cite at length:

I must repeat my caution that there is not, and never will be any universally applicable theory of making up people. Just because dynamic nominalism is grounded in the intricacies of everyday and institutional life it will not lead to a general philosophical structure, system or theory. There is, nevertheless, a rather plausible general question in the offing. If we talk about making up people, we can sensibly be asked: ‘What is your idea of a person, who can be thus made up?’ I believe my own view was unwittingly formed in one of the heroic episodes of philosophy. Philosophy is heroic (in my version of events) when it tries to paint a picture of the *whole* human nature – and of the place of human beings in nature. Kant was heroic. Aquinas was heroic. Aristotle was heroic. I am the very opposite of heroic, not cowardly but proudly *particularist*. I think there is no fixed whole of human nature to discuss.<sup>58</sup>

This particularist stance is shaped by Sartrean existentialism. Hacking states that he relies on Jean Paul Sartre’s conception of a person as a free individual with no essential features, who makes choices and creates his own destiny:

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<sup>57</sup> Hacking (2004).

<sup>58</sup> Hacking (2004, 281, emphasis mine).

We are born with a great many essential characteristics that we cannot change. Most of us can change how fat or thin, how trim or flabby our bodies are. But we can make only the most miniscule alterations to our height. A very great many physical characteristics appear to be fixed at the moment of conception, and many more are determined before the fetus sees the light. We do not yet have the genetic technology to change that, even if it were desirable. Neurologists and cognitive scientists teach us the same about the brain – that a great many of our potential thoughts and thought processes are innate, and that many more mental traits are part of our biological constitution. Many of the possibilities available to us, and many of the constraints imposed upon us, were dealt us at birth. At most we can choose what to do with what is there, although we know little except the most obvious facts about what is ‘in our genes’ and what is the result of other developmental processes. The chances of birth, of family, of war, of hunger, of social station, of the supports and the oppression that can result from religion or caste – the chances of wanton cruelty or high rates of unemployment – once you start listing everything there does not seem to be much room for choice at all. But of course there is. All that stuff is the framework within which we can decide who to be.<sup>59</sup>

It seems to me that Hacking places persons somewhere between “facticities” (to use Sartre’s terms) – one’s biological, genetic, neurological dispositions and limitations as well as social and cultural realities – and the “freedom” to choose whomever one wants to be in the face of these facticities, but he does not take into account the complexities involved in such placement. In other words, it is not straightforward to make choices in the face of facts; human decision-making capacities work in complex ways and do not allow one to “freely” make choices in the face of facticities. Consider, for instance, how he takes the existentialist motto “Existence precedes essence.” Despite “constraints” to freedom, one can still choose:

I favour an almost existentialist vision of the human condition over an essentialist one. But that vision is wholly consistent with good sense about what choices are open to us. We take for granted that each of us is precluded from a lot of choices for the most mundane of physiological or social reasons. Social: as a young man growing up in Vancouver, I could not have chosen to be an officer in the Soviet Navy. Physiological: my father thought I should spend my first two university years at a college that trains officers for the Royal Canadian Navy, because tuition was free, I would get free room and board, and it would make a man of me. Happily my vision was not good enough for me to be accepted. So I had the moral luck not to have to make a choice between a fight with my family and enrolling in the naval college.<sup>60</sup>

But while trying to avoid an essentialistic account of the self, an attitude consistent with his dynamic nominalism, Hacking stumbles upon a simplistic account of the self that is not responsive to

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<sup>59</sup> Hacking (2004, 283).

<sup>60</sup> Hacking (2004, 286).

the complexities of real experience, the features of selfhood that make us responsive to our social and cultural environments and to scientific classifications.<sup>61</sup> This rather simplified account is not responsive to how selves actually experience the world, how they interact with others, how they develop self-related concerns and change their self-concepts, or what motivates behavioral change and how individuals make choices. Empirical evidence in cognitive sciences supports these intuitions about the complexity of human cognition. They offer perspectives on how the self interacts with the social world, how self-concepts are developed, what factors motivate behavior and behavioral changes, how the self experiences mental disorder, and how mental disorders shape behavior and self-concepts.<sup>62</sup> They point to the limitations of our computational capacities and those aspects of our reasoning processes that are driven by short-sighted reasoning strategies, cognitive biases, and opportunistic oversimplifications.<sup>63</sup> Such findings exhibit the complexity of selfhood and show that a Sartrean account is too simplistic. Most importantly, this simplistic account of the self does not enable us to answer the three questions raised above in the context of looping effects in psychopathology, i.e., how the subject's self-concepts and behavior change in response to (i) knowledge about the illness, (ii) course of the illness and (iii) the clinical treatment.

## **Part V. Multitudinous Self and Looping Effects**

In what follows, I substantiate the complexity of looping effects in the context of psychopathology by including what I call the multitudinous self in its causal trajectory.<sup>64</sup> Multitudinous

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<sup>61</sup> Feminist philosophers have criticized Hacking's neglect of the complexity of subjectivity and its inherent relationality, saying that, especially in his discussion of women's experience of multiple personality, he neglects the importance of oppression on the way women remember their past. In particular, Susan Campbell challenges Hacking's claim that the cultural acceptance of traumatic forgetting has allowed women to become suggestible to renarrating their past as having encountered and forgotten being abused as a child. Campbell criticizes Hacking's failure to consider social and relational influences on how women remember their past, and to politically analyze women's oppression (Campbell 2003, 192).

<sup>62</sup> Neisser 1988; Flanagan 1991; Nisbett and Wilson 1977. Pennebaker 1993. Miller, Potts, Fung, Hoogstra and Mintz 1990. Marin, Bohanek, and Fivush 2008; Jopling 2000.

<sup>63</sup> Gilbert 2006; Kosslyn 2006; Williams 2002.

<sup>64</sup> The inspiration for this model of the self is the poem "Song of Myself" by Walt Whitman, where he proclaims, "Do I contradict myself? Very well, then, I contradict myself; (I am large—I contain multitudes.)" Special thanks to Owen Flanagan who steered me in the direction of these lines, hence the word "multitudinous."

self is an empirically and philosophically plausible model of the self that captures the complexities of mental disorders and the process in which alterations occur in self-concepts and behavior. Multitudinous self is a dynamic, complex, relational, multi-aspectual, and more or less integrated configuration of capacities, processes, states, and traits which support a degree of agential capacity subject to various psychopathologies. To develop multitudinous self, I build on Ulric Neisser's account of the self as a complex configuration specified by various kinds of information originating from the subject and its social and physical environment.<sup>65</sup> Neisser argues that the forms of information that individuate the self are so different from one another that it is plausible to suggest that each establishes a different "self." Therefore, he distinguishes five separate selves: the ecological self, or the self who perceives and who is situated in the physical world; the interpersonal self, or the self embedded in the social world who develops through intersubjectivity; the extended self, or the self in time grounded on memory and anticipation; the private self, or the self exposed to private experiences not available to others; and the conceptual self, or the self that represents the self to the self by drawing on the properties of the self and the social and cultural context to which she belongs. All five selves are empirically traced by research in cognitive sciences, including developmental psychology, social psychology, cognitive psychology, and neuroscience.<sup>66</sup>

Instead of construing these five as distinct selves, I take them to be five aspects of the self, forming the multitudinous self. Each aspect is identifiable from the first and third person point of view. These aspects are instrumental in connecting the subject to herself and to the physical and social environment in which she is situated.<sup>67</sup> Multitudinous self can be construed as a self-organizing system of these five aspects, a locus of agency that remains more or less integrated through time. The ecological and intersubjective aspects of the self are based on perception and action and are present at the earliest

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<sup>65</sup> Neisser, 1988.

<sup>66</sup> Neisser investigates each of these selves by appealing to a wide range of research in developmental, social and cognitive psychology. He edited and co-edited several volumes on the different selves. For example see Neisser (1993); Neisser and Fivush (1994); Neisser and Jopling (1997).

<sup>67</sup> Neisser (1988).

stages of human development. Meanwhile, the temporally extended, private, and conceptual aspects of the self are often grounded upon memory, reasoning capacities, the development of representational skills and language; they develop as the cognitive mechanisms mature.<sup>68</sup> The ecological aspect is grounded in the body and is specified by the physical conditions of a particular environment and the active perceptual exploration of these conditions by the subject.<sup>69</sup> It is continuous over time and across varying physical and social conditions.<sup>70</sup> The intersubjective aspect is individuated by “species-specific signals of emotional rapport and communication” between the self and others.<sup>71</sup> It appears from earliest infancy, as the infant engages in social exchange through interaction with caregivers.<sup>72</sup> The temporally extended layer of the self is grounded on what the self remembers and anticipates. It relies on autobiographical memory or other stored information.<sup>73</sup> What the subject recalls depends on what she now believes, as well as what she once stored. The private aspect of the multitudinous self contains the subject’s felt experiences that are not phenomenologically available to anyone else (such as pain); it appears when children first notice that some of their experiences are unique to them.<sup>74</sup>

What is most important for the purposes of this chapter, is the conceptual aspect of the multitudinous self, because it hosts self-concepts, which are influential in guiding behavior. Self-concepts selectively represent the self to the self. They are the products of the dynamic interaction between the aspects of the self, and the features of the social and cultural environment. In turn, self-concepts inform and shape the aspects of the self as well as some features of the social and cultural

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<sup>68</sup> See Neisser (1988); Jopling (1997); Pickering (1999); Gibson (1993).

<sup>69</sup> Neisser (1988). Eleanor Gibson calls this the “rock-bottom self” that collects information about the world and interacts with it (1993, 41).

<sup>70</sup> Jopling (1997, 2000).

<sup>71</sup> Neisser (1988, 387).

<sup>72</sup> See Trevarthen (1980); Neisser (1988); Fogel (1993); Murray and Trevarthen (1985); Bowlby (1969); Stern (1993).

<sup>73</sup> Bartlett (1932).

<sup>74</sup> It is difficult to determine when introspective reference to private experiences develops, but many studies show that children are aware of the privacy of their mental life before the age of five. The four-year-olds tested by Moessler et al., for example, clearly understood the notion of a “secret” (Moessler et al, 1976).

environment. Self-concepts are thus informed by the features of the four aspects of the multitudinous self, the subject's embodied experiences in the world (such as illness).<sup>75</sup> Let me consider them in turn.

Self-concepts include ideas about our physical bodies (ecological aspect), interpersonal experiences (intersubjective aspect), the kinds of things we have done in the past and are likely to do in the future (temporally extended aspect), and the quality and meaning of our thoughts and feelings (private aspect).<sup>76</sup> For instance, my self-concept as a "friendly person" is a product of the intersubjective aspect of my selfhood and of the norms of friendliness in the culture I am a part of.

Self-concepts are informed by the pathologies the person is subject to. This influence is mediated by: the changes that occur in the ecological, intersubjective, temporally extended, and private aspects of the self due to illness; the scientifically based or folk psychological knowledge available to the person about her illness; and her self-narratives in making sense of her condition.<sup>77</sup> For example, having lung cancer affects my ecological self by, say, making it difficult for me to breathe, and this may lead to alterations in how I conceive myself and limit my actions (I may decide to stop running outside). This, in turn, affects my self-concept about my body, something tied to my ecological layer (I may form a self-concept as a person who has difficulty breathing). Or consider Karl. Due to the voices he hears, he talks to himself. In order to avoid being seen speaking to himself, he stops taking public transit. His self-concept as a responsible person caring for the environment by using public transit may shift, in the light of his altered behaviour.<sup>78</sup>

Self-concepts are shaped by folk and scientific knowledge available to the subject about her illness. For instance, what Karl learns about the course of his illness from various scientific and folk media may lead him to alter his self-concepts. Prior to his illness, he considers himself someone who

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<sup>75</sup> Neisser (1988). Jopling 1997, Tekin 2011

<sup>76</sup> See Jopling (1997, 2000); Neisser (1988).

<sup>77</sup> Tekin (2010, 2011).

<sup>78</sup> Of course, not every illness experience leads to alterations in self-concepts. People with psychotic disorders such as delusional disorder (once known as paranoia), and schizophrenia commonly suffer from anosognosia - that is, a lack of awareness of their disorder, its symptoms, and its severity (Amador, Seckinger 1997; Amador, Strauss, Yale and Gorman, 1991). Such psychiatric patients may not change their self-concepts in response to the illness experience.

wants to pursue a career in academia, but upon learning the scientific accounts of the course of his illness, he revises his self-concepts. In addition, the narratives Karl tells himself about his illness may alter his self-concepts.

Self-concepts are action-guiding; our ideas about ourselves inform how we behave. My self-concept of my physical strength affects my physical activities: I may or may not reach out to lift a suitcase depending on how strong I feel and how heavy I perceive the suitcase to be. Similarly, my self-concept about my intelligence and ability to learn new philosophical material influences what I can actually learn or how well I do in a job interview. Similarly, in the context of mental disorders, the self-concepts formed or altered in this vein influence subject's actions. For instance, Karl's concept of himself as a person with schizophrenia who will be unable to finish the graduate school may in fact influence his decision to quit the graduate program he is enrolled. Similarly, his self-concepts may constrain or expand his resources in responding to his illness.<sup>79</sup> Perceiving himself as someone who needs help he may reach out to communities of individuals who experience a similar condition. Thus, self-concepts motivate the subject to think, act, and behave in certain ways, restricting or expanding her possibilities for action.<sup>80</sup>

Note that the multitudinous self incorporates psychopathology in its structure, taking it as a possible feature of the self. Mental disorder is broadly construed in this model of the self by considering how well the subject functions with respect to the layers that connect her to her self, her social world, and the physical world; it takes the complexity of selfhood as the norm. As multitudinous self embraces the complexity of being subject to psychopathology, we can use it to make sense of how self-concepts change after the subject receives a diagnosis of mental disorder. Self-concepts and behavior change due to: (i) the subject's knowledge of the illness, as Hacking emphasizes in his discussion of looping effects; as well as (ii) the course of illness; and (iii) the psychiatric treatment the subject receives.

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<sup>79</sup> Tekin (2010, 2011).

<sup>80</sup> Tekin (2010, 2011); Jopling (1997); Tekin forthcoming.

The multitudinous self illuminates the case study cited above. Karl's experience with schizophrenia can be traced through the five aspects of the multitudinous self. The symptoms of schizophrenia, such as hearing voices and encountering hallucinations, are part of the private aspect of the self. These can also be traced through the ecological aspect, insofar as some neurochemical changes are associated with such experiences. Schizophrenia compromises Karl's interpersonal relationships; he does not talk to his roommates and ignores the walking hours of his dog, phenomena linked to the intersubjective aspect of his selfhood. Schizophrenia may also compromise Karl's plans for the future and his feelings about the past, thereby affecting the temporally extended aspect.

All these alterations in the way Karl experiences himself and the world change how he conceives himself and how he behaves. The diagnosis he receives, the psychiatric treatment that accompanies the diagnosis, the onset of schizophrenia, the social treatment he receives from his community, and the knowledge he acquires about his illness lead to interrelated changes in his self-concepts and behavior. As discussed above, some symptoms may diminish while others remain: although he may continue to hear voices and talk to himself, the visual hallucinations may diminish with the help of the medication. But other experiences may present themselves; he may start sleeping excessively, for instance, or he may become more socially isolated. His former conception of himself as a healthy person, fairly social, and a good dog-owner may be replaced by the idea that he is ill and socially isolated. Knowledge he gains about his schizophrenia, the cultural stereotypes and prejudices associated with it, and the self-narratives he creates will all influence his self-concepts and behavior.

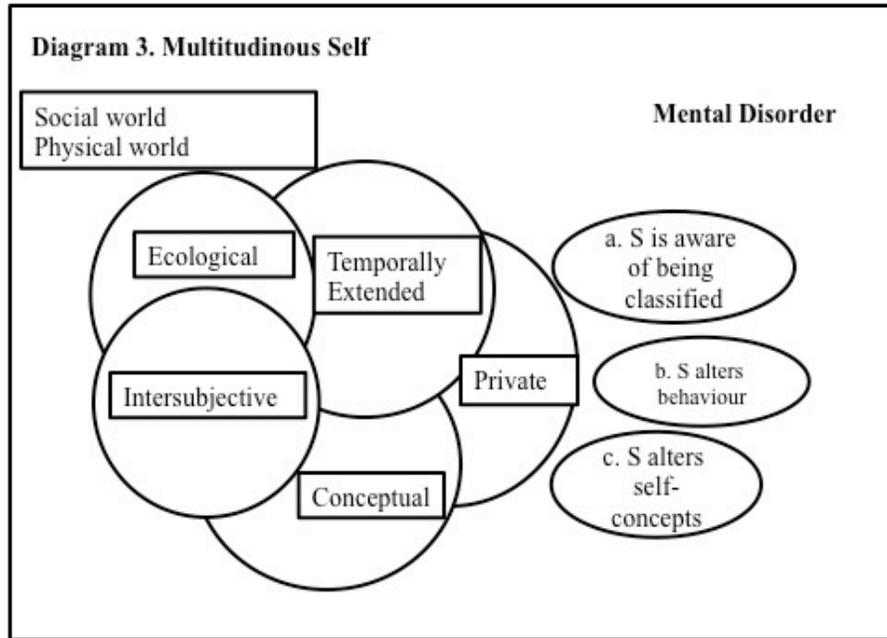
Thus, the changes in Karl stem not only from (i) the knowledge he gains about his illness (including professional and cultural conceptions as well as stereotypes), as Hacking emphasizes, but also from (ii) the illness itself and (iii) the clinical treatment he receives. Thus, Hacking's discussion of looping effects, insofar as it emphasizes (i), is only the tip of the iceberg; the changes in those receiving a psychiatric diagnosis are more complex, given the dynamic and multilayered nature of selfhood and the complexity of the encounter with mental disorder.

Multitudinous self bolsters our understanding of looping effects by explaining how and why the self responds to being studied in the way it does. To sum up, three features of the multitudinous self framework permit such scrutiny: (i) multitudinous self explains the reflective influence of psychiatric diagnosis on people; (ii) it considers the illness experience as a part of the self-experience of the subject; and (iii) it explains how the clinical and intersubjective treatment the subject receives changes her self-concepts and behavior.

In short, multitudinous self is an empirically and philosophically plausible model of the self; the aspects of the self are responsive to experiences of actual people as we encounter them in daily life and can be scrutinized by multiple, interdisciplinary scientific analyses.<sup>81</sup> As unexplainable phenomena will remain despite the multiple approaches offered by various sciences and first-person accounts of selfhood, it is important to work with a model of the “self” rather than the particular layers of the self which can be clustered as, say, “genetic make-up,” or “moral luck” (as Hacking does). Doing so prevents the reduction of a complex set of questions pertaining to the self and mental disorders. Without the multitudinous model of the self, in other words, we will lose important information about actual persons. Diagram 3 lays out the multitudinous self.

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<sup>81</sup> Flanagan, natural method.



## Part VI. Conclusion

In this chapter, I filled in some gaps in Hacking's account of looping effects by introducing the multitudinous self in its causal trajectory. In particular, I have argued that there are two connected gaps in Hacking's analysis of looping effects. First, an empirically and philosophically plausible account of the self is missing in the causal structure of looping effects. Second, Hacking fails to engage with the complexity of mental disorder in the consideration of this phenomenon in the realm of psychopathology. Due to these shortcomings, it is not explicit in Hacking's looping effects how exactly classifications of mental disorders change the self-concepts and behavior of those diagnosed with these conditions. I offered an empirically and philosophically plausible model of the self that I call the multitudinous self which fills in these gaps. Multitudinous self, capturing the complexity of selfhood and the encounter

with mental disorder, makes explicit how self-concepts are formed, how they evolve, and how they motivate behavioural changes in the subjects. Grounded as it is in the sciences of the mind and responsive to the experiences of those living with mental disorders, the multitudinous self better explains the causal trajectory of looping effects. Multitudinous self, I further suggested, is a fruitful schema for both the scientific research programs in their investigation of mental disorders and the clinical and ethical contexts in facilitating successful interventions into the lives of those with mental disorders, allowing them to flourish. Thus, with the multitudinous self, I advocate a new style of reasoning about mental disorders in philosophy of psychiatry.

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