# Affective Selves, Streams of Consciousness, and Mental Time Travels

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# 14 Affective Selves, Streams of Consciousness, and Mental Time Travels[1]

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> What we want in survival is not only personal identity but the continuation of our individual personality.
>
> Mark Johnston (2010, 259)

How should we understand our sense of being the same individual across time? On which mental phenomena does this sense of diachronic identity rely? Philosophers interested in this issue have typically emphasized the role of some form of psychological continuity. Traditionally, philosophers' interest has focussed on the continuity that is constituted by memory and, more generally, Mental Time Travel (MTT). More recently, their interest has also encompassed the continuity that is characteristic of the stream of consciousness. Let me briefly characterize these two kinds of continuity.

The continuity distinctive of MTT consists in the fact that, when someone remembers an event or object, this is typically accompanied by a sense, for the individual who remembers, that she or he is identical with the individual who previously experienced that event or object. As John Locke famously put it, memory is a power "to revive perceptions which [the mind] has once had, with this additional perception annexed to them, that it has had them before" (*Essay* II.x.2).[2] A closely related "additional perception" routinely accompanies MTT when we project ourselves in counterfactual scenarios – e.g., to imaginatively explore what we would perceive and feel if we were to sky jump.[3]

As to the continuity characteristic of the stream of consciousness, it consists in the basic fact that there is a phenomenal connectedness to the psychological states that succeed one another "within" any stream of consciousness. Barry Dainton and Tim Bayne articulate this idea nicely when they write,

> A typical stream of consciousness is not a succession of discrete experiential atoms, far from it. Each brief phase of a stream of consciousness is experienced as flowing into the next. Think of what it is like to suffer a prolonged toothache, or to hear an extended tone played on a flute, or to watch a balloon float slowly across the sky.
>
> (Dainton and Bayne 2005, 554)

The claim that these two kinds of continuity undergird a significant portion of our sense of diachronic identity can hardly be questioned.[4] However, in focusing almost exclusively on them, philosophers may have painted an inaccurate picture of our sense of diachronic identity. Some recent data indeed suggest that what is most important to this sense are rather long-standing character and personality traits that, as we shall see, essentially build upon our affective states.

In what follows, I wish to explore some ways in which affective states shape our sense of diachronic identity. My hope in so doing is to build bridges between recent approaches that emphasize the role of character and personality traits and more traditional accounts that give pride of place to MTT and/or the stream of consciousness.

The discussion is structured as follows. In Section 1, I present data suggesting that memory is less important for our sense of personal identity than the preservation of character and personality traits. This provides the background for Section 2, in which I lay out an account of character and personality traits according to which they are psychological states that give a specific weight to a (dis)value. The central features of these traits, I contend in Section 3, support the conclusion that they are multi-track dispositions whose central manifestations are emotions – for that reason, moral and personality traits are constituents of what I call the affective self. If this is along the right track, emotions have an important influence on our claims about diachronic identity. But how do emotions relate to the two kinds of continuity introduced earlier? This is the key issue if we want to build bridges between the affective self and traditional accounts in terms of MTT and/or the stream of consciousness. The aim of Sections 4 and 5 is to tackle this issue. Section 4 explores how emotions impact the stream of consciousness. I put forward a view according to which emotions are processes that structure the way our psychological lives unfold: the key claim is that the unity of an emotional episode is the unity of a system that organizes consciousness to modify or maintain a subject-environment relation. This claim supports the conclusion that emotions are crucial contributors to the sense of identity characteristic of the stream of consciousness. In Section 5, I turn my attention to the relation between emotions and the sense of identity generated by MTT. I emphasize two relations. First, emotionally salient material is preferably encoded, which means that it is then better remembered and more easily available for imaginative projection than other material. Second, I focus on the so-called mood congruence effect: when undergoing an emotion, subjects are more likely to remember and to project into events of a similar emotional "quality" compared to neutral events or events of different emotional qualities. Considering these two relations, I conclude that emotions are central determinants of the sense of continuity generated by MTT.

## 1  Memory, Traits, and Identity

While some philosophers have recently been interested in the relation between the sense of diachronic identity and the stream of consciousness, it is fair to say that memory (and, more generally, MTT) has received the lion's share of attention: our capacity for MTT would essentially shape the sense of who we are across time. As widespread as it is, this emphasis may turn out to be wrong-headed in light of recent data, which suggest that subjects perceive memory to be less crucial for diachronic identity than the preservation of moral and personality traits. Let me present some of the evidence.[5]

In a series of studies, Nina Strohminger and Shaun Nichols have tapped into subjects' intuitions about personal identity after a variety of significant changes. They were interested in how intuitions about personal identity are modulated by the psychological consequences of such changes and asked subjects to rate the degree of identity between the person before and after the change.[6]

In the first study, the changes consisted of different sorts of cognitive impairments resulting from brain transplants. The impairments relevant to us are those that Strohminger and Nichols labelled "amnesia" (lack of memory for crucial events in the subject's past life) and "morality" (loss of character traits such as being honest, untrustworthy, loyal, coward). Subjects rated changes in morality as having the most dramatic impact on identity – in particular, they judged this impact to be more dramatic than that of amnesia, the pairwise comparison being significant ($p < .01$).

In the second study, subjects were told that the changes resulted from the absorption of psychoactive "magic bullet drugs" as opposed to brain transplants. The changes were categorized in a slightly different way. As far as we are concerned, the most significant alteration regards the addition of "personality" – i.e., traits such as being shy, anxious, industrious, absent-minded, ambitious, outgoing, and so on. Subjects again rated the impact of these changes on identity, and they once more rated changes in morality as having the most dramatic impact on identity. However, changes in personality traits were now rated a close second, with lack of memory lagging significantly behind both.

In light of these results, Strohminger and Nichols write,

> The moral faculty is [the] part of the mind most likely to be seen as the ultimate explanation for whether a person's identity endures or fades away. That is, subjects in the moral deficit condition did not, by and large, recourse to explaining its importance in terms of other underlying factors.

> (Strohminger and Nichols 2014, 161)

There is little doubt that our sense of diachronic identity is structured for a significant part by character and personality traits. Expressions such as "Michelle was not herself during the excursion", or "This is not the Sébastien I have known" refer to situations in which a person did not (for whatever reason) manifest one of her typical traits. What makes these results surprising and worth exploring is the more momentous idea that these traits form the core of our sense of diachronic personal identity – as opposed to MTT connections.[7]

This raises two questions that will structure my discussion. The first concerns the nature of character and personality traits. In Sections 2 and 3, I lay out an emotion-based account that supports the idea that character and personality traits are central aspects of what I shall call the "affective self". Given that my aim is to build bridges between approaches that emphasize the role of affective states and more traditional accounts, the second question concerns the way the affective self relates to the sense of identity that is characteristic of the stream of consciousness and of MTT. I explore these relations in Sections 4 and 5.

## 2  Character and Personality Traits

Character and personality traits form the core of our sense of diachronic identity. How should we conceive of these traits?

An attractive entry point into their nature is to draw attention to the fact that character and personality traits are organized around specific (dis) values or the (dis) values of certain types of situations.[8] This is to say that, when we attribute such a trait to a person, we thereby claim that she *gives a specific weight to a value or type of situation in her reasoning and behaviour*. Consider two examples. An honest person is characterized by the weight she gives to the value of truth. Considerations pertaining to truth tend to channel her thinking in specific directions, to trump other considerations, and to lead her to reach specific practical and theoretical conclusions. Moreover, she consistently acts on what she perceives as the truth, and she tells the truth even in the face of disagreeable consequences for doing so – consequences that would lead many of us to opt for some avoidance strategy instead. As a second example, consider shyness, a personality trait. The shy person is characterized by the negative weight she gives to public exposure. For her, considerations pertaining to public exposure tend to trump other considerations and lead her to practical and theoretical conclusions. She reliably avoids exposure, and this even in the face of detrimental consequences to herself. More generally, character and personality traits lend themselves quite naturally to descriptions along these lines.[9]

The foregoing observations suggest that character and personality traits have both a *cognitive* and a *conative* side.[10] Consider first their cognitive side. For a subject to assign a weight to a value, she must of course detect that value – if not whenever it occurs in her environment, at least quite

reliably. One would hardly describe someone as being honest if she was incapable of detecting the situations that call for truthfulness. Things are similar for personality traits: it is characteristic of the shy person that she reliably detects situations where a risk of public exposure is present – e.g., when she starts thinking about an official lunch a week from now and it dawns on her that she may be asked to make a speech. On the cognitive side, someone with a given trait is characterized by the way her attention is captured and sustained. The honest person's attention is captured by situations that call for truthfulness, and she pays sustained attention to them until truth is given its due. The shy person's attention is captured by situations where public exposure threatens, and she pays sustained attention to them until the risk is avoided.

Consider now the conative side of character and personality traits. To have such a trait, being aware of the relevant value is not enough. A pathological liar may be as reliable as an honest person in apprehending situations that call for truthfulness, only they will offer him as many opportunities to deceive. Similarly, someone may have his attention captured whenever public exposure threatens because he is desperate to help a shy friend. What should be added to the reliable detection of the relevant value or type of situation is of course a specific motivation. In contrast to the liar, the honest person is motivated to tell the truth, a motivation which trumps other considerations. As to the shy person, she differs from the helping friend in being motivated to avoid public exposure at almost any cost.

Two additional aspects of character and personality traits should be emphasized. First, these traits typically *manifest without reflection*. The honest person must surely sometimes reason to detect trait-relevant situations and to determine what truth demands – this is the case in novel or complex circumstances, on which a variety of further considerations bear. But this contrasts with the way the trait manifests in simpler circumstances, in which the honest person tells the truth without a second thought – in such circumstances, reflection betrays someone trying to cultivate the trait.

Second, character and personality traits belong to the category of *multitrack dispositions*. Being honest or shy is not constituted by any given episodic psychological condition. During most of their waking lives, there is no specific psychological episode that the honest or shy person is undergoing. And people remain honest or shy even when they are fast asleep. Character and personality traits are rather persistent conditions that qualify subjects' psychology for long periods of their lives. In this respect, they are similar to beliefs and dissimilar to experiences. Honest and shy persons are singularized by their tendency to undergo specific types of mental states in specific types of circumstances. When the honest and the shy person undergo diagnostic psychological episodes, this is a function of the circumstances that surround the value that they apprehend (more on this in Section 3).

Let me recap. Character and personality traits are multitrack dispositions that typically manifest without reflection and lend themselves to

descriptions in terms of the weight given to a value, where this weight decomposes into a cognitive and a conative side. In the next section, we shall appreciate how attractive it is to understand character and personality traits as multitrack *emotional* dispositions.

## 3  The Affective Self and Its Function

At this stage, the key question is, How do character and personality traits manifest in consciousness? The aim of this section is to offer some reasons to think that their close connections to values and emotions justify grouping these traits under the umbrella term "the affective self".

Intuitively, we think of the honest and the shy person as prone to distinctive types of emotions depending on the circumstances. The honest person is glad to see that truth is honoured (e.g., when watching a well-informed journalist pushing a politician to her limits), disappointed or indignant – as a function of the stakes – upon realizing that someone is insincere, regretful upon realizing how tempted she is to prevaricate, shameful or guilty if she succumbs to the temptation, and so on. Things are the same for the shy person, who is first and foremost characterized by the emotions she is prone to feel in various circumstances. She fears the – even quite distant – risk of public exposure; when it materializes, she feels embarrassed, perhaps even ashamed; when it does not materialize, she is relieved, and so on. Character and personality traits are multitrack dispositions, and this is reflected in the rich repertoire of emotions that manifest these traits in distinct circumstances.

The idea that emotions are the central manifestations of character and personality traits[11] is not only intuitively attractive, but it also chimes well with the profile of these traits that we have painted in the foregoing. Emotions indeed have the right pedigree to implement the idea that character and personality traits have a cognitive and a conative side. To substantiate this claim, we need to learn a bit more about the emotions. Here is a sketch.[12]

Emotions have a complex intentionality. They have a *particular object*, which typically corresponds to the grammatical object of the emotion verb: one is afraid of the predator, amused by a joke, sad about the defeat of one's team, or ashamed of what one has done. In order to have particular objects, emotions must build upon other mental states that function as their cognitive bases: one is afraid of the predator one sees, amused at the joke one hears, sad about the defeat one learns about, or ashamed of what one remembers. Emotions have also a *formal object*, which is a specific thick value[13] that varies depending on the emotion type. Emotions are evaluative experiences – this is a widely accepted claim, even if the specific sense in which they are is a hotly debated topic (see, e.g., Deonna and Teroni 2012; Mitchell 2021; Rossi and Tappolet 2019). Fear is an experience that somehow concerns the threatening, amusement the funny, sadness a loss, shame the shameful, and so on. This is why emotions have

evaluative correctness conditions: fear is correct if and only if there is a threat, amusement is correct if and only if there is fun, etc. Whichever way one accounts for the relation of emotions to values, no one denies that emotions are often elicited without forethought, and rarely involve painstaking and explicit evaluation processes (e.g., Moors et al. 2013; Scherer 2013).[14] Closely related to the evaluative aspect of emotions is their connection to *attention*. The cognitive resources of someone undergoing an emotion are channelled towards the emotion's particular object – this is an idea we shall have the opportunity to sharpen in Section 4. This channelling of cognitive resources is the essence of attention.[15] Finally, emotions not only channel cognitive resources but also prepare us to deal with a specific aspect of the environment and are partly constituted by distinct *action tendencies* (Deonna and Teroni 2012, 2015; Frijda 1986, 2007; Scarantino 2014). In fear, our bodies are mobilized to neutralize something; in anger, they are mobilized for a form of active hostility; in shame, for moving away from the gaze of others; in awe, perhaps for getting a sense of our limitations by focusing on a given object.

If this is along the right track, we can now appreciate that emotions have the right pedigree to manifest in consciousness the cognitive and conative sides of character and personality traits, and to do so in a cognitively undemanding way.[16] Consider their cognitive side – i.e., the fact that someone with a given trait must detect the relevant value. Emotions can take over this side of traits in virtue of being evaluative experiences that include non-demanding, perhaps mostly sub-personal processes of evaluation that channel the organism's resources towards a particular object. Consider now the conative side of traits – i.e., the fact that someone with a given trait has a distinctive motivation. Emotions can take over this side of traits in virtue of being partly constituted by a variety of action tendencies. This provides the opportunity to emphasize that the attentional and the action tendency dimensions of emotions are closely intertwined. During an emotion, cognitive resources are channelled towards dealing in a specific way with the particular object – this way of dealing with the object can take place at the level of behaviour and/or thought.[17] All this militates in favour of the idea that character and personality traits are multitrack dispositions whose central manifestations are emotions.

Before we bring this section to a close, let me say a few words about the function of these traits. In a nutshell, character and personality traits *lend structure and resilience to our psychology*. To see why this is the case, we have to integrate our starting point according to which traits give weight to values and the claim that they are multitrack dispositions. The various emotions that manifest a trait in different circumstances are indeed not random: they work in partnership, so to say, and it is only because they do so that traits give weight to values. Character and personality traits organize emotions and channel them towards "aims" to which we would be blind in their absence. Without the system of emotions orchestrated by

honesty, we would be blind to the value of truth and incapable of promoting it. Similarly, without the system of emotions orchestrated by shyness, we would be blind to the disvalue of social exposure and incapable of avoiding it. This idea has never been better expressed (and explored) than by Alexander Shand, who writes in a telling passage that

> [s]orrow in absence being eliminated, the momentary connection formed with an object is quickly obliterated, and nothing is loved because nothing is "missed".
>
> (Shand 1914, 159)

Giving weight to a value is a matter of having our psychology organized to respond to the demands that this value imposes on us, demands which fluctuate as a function of the circumstances. Individual emotions or, more generally, haphazard episodic states, do not fit the bill. What is required are stable and organized systems of responses to these demands. Character and personality traits are just that.[18]

In this section, I have argued that character and personality traits, which play a key role in our sense of diachronic identity, are aspects of the affective self: they are multitrack emotional dispositions that give weight to values. Our next task is to better understand how the affective self impacts our sense of diachronic identity.

## 4 Emotions in the Stream of Consciousness

We have reached the conclusion that the central manifestations of character and personality traits are emotions. Since my aim is to explore the relations between accounts of our sense of diachronic identity that emphasize the contribution of these traits and accounts that give pride of place to the stream of consciousness and/or MTT, there are two issues that we should now investigate. First, how do emotions manifest in the stream of consciousness? Second, how do they relate to MTT? This section is devoted to the first issue, Section 5 to the second.

If the central manifestations of the affective self were *punctual* mental phenomena, such as judgements (Geach 1969), its impact on the stream of consciousness would be negligible. Its central manifestations are emotions, however, and emotions do not occupy consciousness in the way judgements do. As conscious phenomena, emotions are distinctive types of *processes* (Goldie 2000; Robinson 2018; Scherer 2001).[19] This process typically begins when we notice a significant event or object. Emotional capture of attention is often involuntary and constitutes the type of undemanding value detection that we discussed in relation to the cognitive side of character traits. Attention next fixes on the object and the emotion follows a course, which is the joint upshot of what happens in the environment and of the changes that the emotion orchestrates. Consider the following

illustration. A rodent notices a barely visible presence lurking in the shadows, which produces a moderate amount of fear. Its attention fixes on it, and suddenly a slight movement allows it to identify a predator. The emotion intensifies. Thereafter, fear waxes or wanes as a function of the way the predator behaves – does it stand still, prepare for an attack? – and of the changes that fear orchestrates – the animal's resources are channelled towards avoiding the predator; it may freeze for a while, assess the opportunities for flight, and at a point try to escape.[20]

These observations about the way emotions occupy consciousness help uncover one of their crucial features. As the case of fear illustrates, what is represented during an emotion can change significantly. Most (if not all) emotion processes are not individuated by means of their representational content. They are rather individuated by a system that organizes consciousness and channel it towards modifying or maintaining a given relation with a particular object. The presence of such a system explains why different representational contents so often succeed one another during emotion processes: this happens when these contents occur within a course that the emotion follows as the joint upshot of what is happening in the environment and of the changes that the emotion orchestrates. In episodes of fear, this takes place within an organization of the subject's resources to avoid a threat; in episodes of sadness, these resources are organized to cope with a loss; in admiration, to further explore an object for its own sake, etc.[21]

The key idea has been nicely articulated by C. Evans (1970). Evans speaks of "master ideas" that organize the subject's attention in emotions: these master ideas orchestrate what happens in consciousness, but they need not themselves be consciously entertained. For instance, even though a creature's resources are, in fear, organized to avoid a threat, the idea of a threat need not enter its consciousness – perhaps this is an idea that the creature cannot entertain, despite being capable of reacting with fear. This is close to a claim Julien Deonna and I have pushed forward in emotion theory (Deonna and Teroni 2012, 2015, 2022). According to this claim, emotions need not contain representations of the relevant thick values (threat in fear, offence and anger, the funny in amusement, etc.): the relation between emotions and values must rather be understood in terms of the psychological modes or attitudes that individuate different emotion types. These psychological modes are the action tendency *cum* attentional systems that organize, as we have seen in Section 3, the subject's resources and channel them in specific ways during emotion processes.

Observe that the fact that emotions organize consciousness around master ideas and orient the temporal course of our psychological lives in particular directions is not only revealed in each emotion episode. It is also manifest in typical (and much less studied) *sequences of emotions* that occur in more or less rapid succession. These sequences are familiar to all of us. Think for instance of what happens when you watch a game. You may first hope that your team will win against a freshly promoted opponent,

grow more and more disappointed at their poor performance, to finally turn sad. Conversely, you may start with fear that your team will be trashed by a powerful opponent, feel relieved when you realize that they are surprisingly good at holding their ground, and finally become ecstatic when they score a last-minute goal to win the game. Since the contribution of emotions often takes the shape of these sequences, concentrating on individual emotions would give an incomplete picture of how emotions structure the stream of consciousness,

That being said, let us return to emotional episodes. It is striking that emotional episodes display the same sort of structure that we discussed previously in connection with character and personality traits, although on a different temporal scale. We saw that traits have the richness that is needed for the idea of giving weight to a value to get a foothold. Now, emotions themselves are evaluative experiences – they are correct or incorrect as a function of whether their particular objects have a given value. The foregoing observations suggest that their being evaluative experiences consists in the fact that they organize and occupy consciousness in specific processual ways. This is an attractive view since this aspect of the emotions shapes the way we conceive of their intentionality and correctness conditions. Let me explain.

Our conception of the values that enter into the correctness conditions of emotions (threat in fear, offence in anger, the funny in amusement, and so on) is essentially the conception of *what merits to occupy consciousness and attention in specific ways*. A threat is something that merits to be avoided, an offence something that merits to be righted, and the funny what merits to be laughed at. And when we deplore a lack of emotion in ourselves or others, we claim that an object would merit to occupy consciousness in a given way. We thus assess whether emotions are correct as a function of whether their particular objects merit to occupy consciousness in specific ways (Deonna and Teroni 2021). There can be too little or too much fear directed at a given threat, as there can be too little or too much amusement directed at a given joke – "too little" and "too much" cover here the *intensity* as well as the *duration* of emotional processes. This contrasts sharply with the way we assess intellectual states like judgements and beliefs, where these ideas fail to get a grip (Na'aman 2021).[22] Since psychological states seem to have their correctness conditions essentially (they would not be the very psychological states they are if they had different or no correctness conditions),[23] the fact that emotions occupy consciousness in a processual way is probably not a contingent feature of the way they are realized in our psychology.

We have reached the following conclusions. Emotions, character, and personality traits lend structure to our psychology, although they do so on different temporal scales. Emotions organize portions of our psychological lives around what Evans describes as master ideas, and they are for that reason key determinants of the stream of consciousness.

# 5  In Memory with Affect

We should now turn to our second question: what is the relation between emotions and the sense of continuity generated by memory and, more generally, MTT? I shall focus first on memory, since the available evidence chiefly concerns it, and shall then explain how we can extend these ideas to MTT.

There are multifarious relations between emotions and memory, which are rarely explored in philosophy (Teroni 2020). Let me focus here on two of these relations that are especially relevant given our focus on issues of diachronic identity: the first concerns the encoding of memories and the second the access of memories.

The relation between the *encoding* of memories and emotions is best approached through their respective links to attention. On the one hand, there are intimate relations between emotions and attention. When discussing the way emotions occupy consciousness in Section 4, I emphasized that emotions capture and focus attention in specific ways and in so doing help the subject deal with the relevant objects. This appears to be one of the central functions of emotions (Brosch et al. 2013; Finucane 2011; Harmon-Jones et al. 2013). On the other hand, the available evidence supports the claim that the encoding of emotionally arousing material is enhanced. This should come as no surprise, as we have many occasions to realize that what we remember tends to align with what elicited strong emotional reactions in us. Empirical evidence confirms the idea that enhanced encoding is specific to the emotionally salient object, which is then better remembered (Hamann 2001; LaBar and Cabeza 2006; Phelps 2004; Yonelinas and Ritchey 2015). Combining these two ideas means that attention mediates interesting relations between emotions and memories. Emotions focus the subject's attention on significant events and objects. This enhances encoding and, subsequently, what we are in a position to remember.

The second relation between emotions and memory that I want to emphasize concerns our capacity to *access* memories. Most of the events and objects that we remember in a dispositional sense can be accessed or retrieved only if some condition is met. You may, say, access your memory of a song that you used to listen to in your mid-teens and enjoy an episodic memory of it only if you are reminded of a band you did not think about for 20 years. More generally, our capacity to access memories is sensitive to a variety of factors, among which one affective factor is especially important given our purposes. This is the so-called mood congruence effect. This label refers to a well-documented phenomenon: when in a given emotional state, we are more likely to remember events of a similar emotional "quality" compared to events of different emotional qualities or neutral events (Blaney 1986; Gaddy and Ingram 2014; Loeffler et al. 2013; Matt, Vasquez, and Campbell 1992).[24]

Mood congruence raises a variety of underexplored philosophical issues (Teroni 2020). In particular, it allows us to look into our sense of diachronic identity from a new perspective. As I have observed at the outset of the discussion, philosophers interested in diachronic identity often highlight the role that memory plays within it. This is particularly salient in neo-Lockean approaches to personal identity (e.g., Parfit 1984). Now, it is fair to ask which, among our many memories, play such an identity constituting role: do all memories qualify equally or only those memories that are accessed at some point in the subject's life? Moreover, do all accessed memories qualify in the same way, or is their contribution a function of the number of times they are accessed? One may think that, insofar as we are interested in the *sense* of diachronic identity, accessed memories should have a privileged role and that how much privileged their role is is a function of how frequently they are accessed. In turn, this suggests that our sense of diachronic identity is, if not strictly an emotional affair, at least profoundly influenced by the emotions we undergo.[25]

So, at the time of encoding as well as at the time of remembering, memory is profoundly influenced by the affective states we happen to be in. In organizing our psychological lives around master ideas, emotions are central determinants of our capacity to remember and, hence, of the sense of diachronic identity that it constitutes – this sense of identity has been shaped by the emotions we have felt, and it continues to be shaped by the emotions we feel when we remember.

Is it possible to extend these ideas regarding the connections between emotions and memory to MTT more generally? The evidence for doing so is less clear-cut and direct than in the case of memory, and it depends on background commitments regarding the relations between different aspects of MTT – in particular the relations between memory and imagination. Still, let me sketch two (congruent) strategies that we may deploy to reach this more general conclusion.

The first strategy consists in endorsing the popular view according to which there is a strong continuity between memory and imaginative MTT.[26] If there is such continuity, it should be expected that the two relations between affect and memory discussed in the foregoing apply to all forms of MTT. This is in any case intuitively compelling. On the one hand, the aspects of scenarios envisaged as future or possible that elicit emotional responses may well be encoded in a way that ensures better memory. On the other hand, the mood congruence effect may also affect imaginative projection in future or possible scenarios, as when we seem to face a gloomy future because of a bad event that just happened to us. These two hypotheses chime well with the popular idea that our cognitive capacities – and memory in particular – have evolved mainly to generate reliable predictions about the future (e.g., Schacter, Addis, and Buckner 2007).

The second strategy that leads to the conclusion that MTT in general is crucially influenced by our affective states is less direct. It consists in

pressing into service some well-known considerations about the impact of loss of affect on planning. On the basis of data regarding the difficulties related to decision-making faced by patients suffering from brain lesions in regions that are known to be critical for the generation of affect, Damasio famously hypothesized that the capacity to make decisions relies on affective inputs that he describes as somatic markers (e.g., Bechara, Damasio, and Damasio 2000; Damasio 1994; and, for a critical discussion, Linquist and Bartol 2013). According to this hypothesis, somatic markers shape our capacity to make decisions: some options just "feel right or wrong", as we colloquially say, and the capacity to pick those that feel right is crucial to well-functioning decision-making processes. What these data suggest is that, in the absence of affect, decision-making is disrupted.

On this basis, one may argue that this disruption reveals the influence of emotions on MTT if we accept additional and contentious claims, among which I shall mention two. First, we have to agree that the evidence on which Damasio's hypothesis rests supports the idea that lack of affect disrupts core stages of decision-making. Suppose, as Linquist and Bartol (2013) argue, that a significant portion of the evidence suggests rather that the patients display a *lack of motivation* to implement the conclusions of normal decision-making processes. If so, lack of affect would not disrupt the core stages of decision-making where MTT seems to have a role – e.g., the generation and evaluation of likely or possible scenarios. Second, even if the evidence supports the claim that lack of affect influences the generation and evaluation of possible scenarios, we still have to accept that decision-making depends on imaginative projection in scenarios that we apprehend as likely or possible continuations of our lives. This is questionable, as we may think that only some decisions – e.g., those that are important or difficult – are subtended by such imaginative projections. If so, affect would turn out to be an important determinant of MTT in these situations only (but see Gerrans 2007 for the idea that decision-making standardly involves MTT in the guise of memory and imagination). Still, this may already be enough to conclude that MTT is crucial to our sense of diachronic identity.

## 6  Conclusion

Starting with the idea that character and personality traits are crucial determinants of our sense of diachronic identity, my aim was to explore how this idea relates to more traditional approaches to this sense of identity that emphasize the contributions of MTT and the stream of consciousness. To this end, I first offered an account of character and personality traits according to which they are multitrack emotional dispositions and constitute for that reason important aspects of the evaluative self. I next examined the impact emotions have on our sense of diachronic identity. I argued that emotions are processes that organize consciousness to modify

or maintain a subject-environment relation which crucially contributes to the sense of continuity characteristic of the stream of consciousness. Finally, I explained that emotions impact memory in at least two important ways. This substantiates the thought that emotions are also central determinants of the sense of continuity generated by memory and, more generally, MTT. It turns out that our sense of diachronic identity is fundamentally affective.

## Notes

1 I am grateful to Anja Berninger and Íngrid Vendrell Ferran for their helpful comments on a previous version of this chapter.

2 This sense of having witnessed the event, and more generally the awareness that we are continuants who can occupy different spatiotemporal positions, is often described as a form of "autonoetic" consciousness that characterizes only some forms of memory (e.g., Tulving 1985) and, for that matter, imagination. In what follows, I shall exclusively focus on these forms of memory and imagination.

3 I do not mean to deny that we can imaginatively project in the perspectives of others. In so doing, the additional perception at issue is probably absent or at least substantially modified. I simply presuppose that a sense of identity typically accompanies central – arguably even the fundamental – cases of imaginative projection.

4 Dainton and Bayne emphasize what they perceive as a contrast between *phenomenal* views of personal identity in terms of streams of consciousness and neo-Lockean views of personal identity that refer, they claim, to diachronic connections between mental states that are *exclusively causal*. Even if this contrast is accepted – I do not think that it should be – my interest here justifies my focus on the *sense* of identity that seems to me in any case phenomenally salient in central cases of MTT.

5 In what follows, I concentrate on Strohminger and Nichols's studies, which help convey the central points in a straightforward way. The main claim – that subjects perceive memory to be less crucial than the preservation of moral/personality traits – appears to be robust. See, e.g., Prinz and Nichols (2016) for data in the more general context of various approaches to diachronic personal identity, Jirout Košová et al. (2021) for data suggesting that the importance of traits already structures children's thinking, and Gomez-Lavin and Prinz (2019) for data in relation to responsibility ascriptions. More generally, these results can be profitably discussed in the context of "essentialism" about psychological traits, on which see, e.g., Haslam, Bastian and Bissett (2004) and Gelman, Heyman, and Legare (2007).

6 Two observations are in order. First, while Strohminger and Nichols did not compare self vs. other verdicts and suggest that traditional emphasis on memory may reflect its prevalence in the first-person perspective, Prinz and Nichols (2016) observe that, in their own studies, they "found no differences depending on whether the question was about self or other." Second, the studies in Strohminger and Nichols and the other studies I am aware of ask subjects to express their views about diachronic identity *after* the relevant change happened (e.g., imagine you meet a friend you had not seen for 40 years; he has changed in this or that way; how does that impact his identity?) and *not before* they happen (e.g., imagine you will meet the old friend; he will have changed in that way, etc.). This is important, as views about, for example, one's own self-identity may change as a function of one's temporal perspective – one may be

ready to contemplate more significant changes as compatible with diachronic identity in retrospect than in anticipation. Thanks to Anja Berninger for drawing my attention to this issue.

7  The contrast between MTT connections and character/personality traits is reminiscent of David Hume's distinction between the self as it relates to thought/imagination and the self as it relates to the passions (see Lecaldano 2002). We shall have the opportunity to realize that Hume's insistence on the passions is spot-on.

8  Given my aims in this chapter, I shall rest content with the backbone of an approach to character and personality traits. For a detailed discussion, an explanation of the relations between traits and sentiments (love, hate) and a more generous diet of examples, see Deonna and Teroni (2009).

9  Let me emphasize that these descriptions hold only if the person does not disavow the relevant trait. If she does, the trait will still influence her reasoning and behaviour, but its influence will be, for example, more limited (at least in the contexts where the disavowal is active).

10  In drawing this distinction, I do not mean to imply that these sides are wholly independent of one another. Insisting as I shall do on the fact that emotions are central manifestations of character traits is actually a way of not distributing the two sides of traits over distinct psychological states.

11  To say that emotions are the central manifestations of traits is, of course, not to deny that traits also manifest in other ways – for instance, in habits of thought and behaviour. Exploring the relation between the different manifestations of traits is far beyond the scope of my discussion.

12  For a more thorough exploration of the emotions, see Deonna and Teroni (2012).

13  This term, which originates in Bernard Williams's (1985) seminal discussion, calls attention to the idea that evaluations in emotions are not "thin" since being threatening or amusing are specific ways of being bad or good.

14  In Teroni (2021), I discuss the ways evaluations are understood in a variety of philosophical and psychological approaches.

15  The relation of emotions to attention is a recurring topic in the literature. See, e.g., de Sousa (1987) on the frame problem; Frijda (1986, 2007) and Scarantino (2014) both argue for the idea that emotions take precedence in cognition. While the fact that emotions involve patterns of attention is not disputed, the precise function of emotionally driven attention is. For different approaches, see Brady (2013) and Evans (1970).

16  In what follows, I presuppose in line with most recent approaches that emotions are relatively short-lived episodes. This is not to deny the importance of a variety of emotional dispositions, see, e.g., Deonna and Teroni 2009. For dissenting voices according to which emotions are rather to be identified with long-standing dispositions which come closer to character and personality traits, see Goldie (2000) and Wollheim (1999). In my opinion, this debate is to a large extent terminological, as all parties to the debate should acknowledge the existence of both emotional experiences and emotional dispositions.

17  This close connection is also manifest in the fact that variations of emotional intensity correspond to variations in the amount of cognitive resources that are devoted to the emotional situation. See Finucane (2011), Harmon-Jones et al. (2013), and Brosch et al. (2013).

18  Frankfurt expresses a similar idea in connection with care when he writes that "a person can care about something only over some more or less extended period of time. It is possible to desire something, or to think it valuable, only for a moment. Desires and beliefs have no inherent persistence; nothing in the nature of wanting or of believing requires that a desire or a belief must endure" (1982, 261).

19 Theorists who emphasize the processual nature of emotions often do so from the viewpoint of appraisal theory, according to which emotions consist in changes orchestrated by processes of molecular appraisals – an emotion would always contain or presuppose a sequence of appraisals in terms of goal relevance, intrinsic pleasantness, etc. (Scherer 2001; Robinson 2018) I propose to explore here the idea that emotions are processes independently of these further commitments. For discussion of appraisal theory and its relation to the philosophy of emotions, see Teroni (2021).

20 Given my interest in the way emotions manifest in consciousness, I need not enter into the issues surrounding the relation between the *state* of being in a given emotion and the relevant *processes* – processes such as the one sketched here for fear are what is manifest in consciousness, as opposed to emotional states as such. On the relation between emotional states and processes, see Soteriou (2018).

21 These observations raise the issue of the relation between conscious attention and selection for thought and/or action. Some philosophers identify the two (Wu 2011), which is arguably too strong, as we may sometimes select an item for thought and/or action without consciously attending to it (Watzl 2011). Whether or not the sort of selection specific to the emotions is essentially conscious, I only want to insist here on the fact that emotions occupy consciousness in channeling the subject's resources towards dealing with an object in a specific way.

22 This, of course, reflects the fact that these intellectual states do not occupy consciousness in the processual way characteristic of the emotions.

23 In emotion theory, this claim is controversial, as some philosophers think that emotions have evaluative correctness conditions thanks to being integrated into normative practices to which they are contingently related. For discussion, see Deonna and Teroni (2021).

24 Let me take the opportunity to make two observations. First, "mood congruence" refers to a phenomenon that encompasses much more besides the impact of affective states on the memories one can access – the impact on one's evaluative judgements is another prominent issue. Second, there is evidence that attention to one's current affective state mitigates the impact of this state on one's evaluative judgements (see, e.g., McFarland, White, and Newth 2003). I am not aware of studies exploring the influence of attention to one's feelings on one's capacity to access memories, however. Thanks to Angela Abatista for discussion of this issue.

25 An intriguing issue that I cannot explore here concerns the impact of changes in the affective self on the quality of MTT. For instance, Libby and Eibach (2002) gathered data suggesting that remembered or imagined events conflicting with what we (think we) are now tend to be viewed from an observer perspective, which seems to manifest a sort of distancing effect.

26 See Conway (2009) on the idea that there is a single remembering-imagining system, as well as Schacter and Addis (2007) and Schacter et al. (2012) for data supporting the idea that "episodic memory supports future simulation by allowing people to flexibly retrieve and recombine elements of past experiences into novel representations of events that might occur in the future." Klein (2016) offers important reasons to doubt that simulation builds in this way upon the contents of episodic memory and argues that MTT is rather enabled by the form of self-projection that is shared by memory and imagination. As far as I can see, this does not affect the points I am about to make. For a philosophical exploration of these issues, see Michaelian, Perrin, and Sant'Anna (2020).

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