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Future of Identity in the Information Society

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Summary

Deliverables 7.14a and 7.14b seek to detect in which way the new type of profiling that is the subject of FIDIS work package 7 – machine profiling based on data mining techniques – is different from previous ways of profiling, and how this relates to the construction of our identity. The concepts of *idem* and *ipse*, coined by the French philosopher Ricoeur, are used to look into the issue of human identity as something that emerges between a person and her environment. The question we try to answer is how sophisticated and dynamic categorisation as produced by profiling machines (data mining) may impact identity formation, in comparison with the familiar type of categorisation that is generated by human profiling (stereotyping and social labeling). In this report, D7.14a, we undertake a theoretical and conceptual exploration of the concepts of *idem* and *ipse*, in relation to human and machine profiling. The follow-up report, D7.14b, will discuss how these concepts apply in more concrete contexts.

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Foreword

FIDIS partners from various disciplines have contributed as authors to this document. The following table lists the main contributors for the chapters of this document.

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Executive Summary	Bert-Jaap Koops (TILT), Mireille Hildebrandt (VUB) and Katja de Vries (VUB)
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Executive Summary

In identity research, 'identity' is often used to refer to an identifier, a set of attributes that individuate a person among a group. However, 'identity' also has another meaning: the sense of self, a set of answers that someone may give to the question 'Who am I?' These meanings are interrelated: being identified through identifiers affects the sense of self, just like answers to the question 'Who am I?' may be used as identifiers, in a dual process that we may call identity construction.

This process is affected by the new type of profiling that is the subject of FIDIS work package 7: machine profiling based on data mining techniques. It is relevant to study the consequences of profiling on identity construction, since privacy can be seen as the freedom from unreasonable constraints on the construction of one's identity (Agre and Rotenberg 2001:7), and machine profiling may violate privacy when it constrains people's identity construction – and self-development – in unreasonable ways.

The aim of this report is to clarify the potential effects of machine profiling on identity construction by exploring the concepts of *idem*-identity and *ipse*-identity that were introduced by Ricoeur. **Idem-identity** is the third-person attribution of sameness: 'This is Miss Cheung, a blond female executive'; it takes an objectified perspective. **Ipse-identity** depends on a first-person perspective on what constitutes oneself as a continuous being in the course of time, while experiencing multiplicity and difference in the here and now: 'I am Li-lian, a feminist and executive, even if this male bully is treating me right now as a secretary'; this takes a subjective perspective. These two processes cannot be reduced to each other and actually depend on each other.

This report analyses identity construction in light of profiling from various perspectives, building on the work of philosophers like Ricoeur, Mead, and Foucault, and social psychologists and sociologists like Goffman and Tajfel. The newness of machine profiling – for example, the fact that this often takes place without the subject knowing she is being profiled – is off-set with an analysis of classic ways of human profiling: stereotyping and social labeling. These various strands are brought together to sketch a tentative conceptualisation of identity construction in relation to human and machine profiling. Some key findings are that:

- identity is fundamentally relational: one's relations with the rest of the world may constrain the self but these relations are also constitutive of identity;
- identity construction relies on a process of double anticipation: it is mediated by how we profile others as profiling us ('I see this man is asking me to get him a coffee; he must be thinking I'm a secretary');
- the sense of self is dynamic: it continuously adapts itself to new information and knowledge about the self and its environment ('Well, perhaps I am better at menial tasks than at leadership');
- a narrative identity – 'me' as constructed by the 'I' in relation to others in time and space – can be seen as the meeting point of *idem* and *ipse*; it is the interplay between *idem*-identity and *ipse*-identity that enables a person to dynamically construct her identity in the face of being profiled ('This makes me think of my youth dream of becoming a stewardess, my emancipated mother, my interview for this job, and de Beauvoir's *Le deuxième sexe* – all this forces me to show who I am *now*');

- the impact of profiling on the narrative identity ('me') can reinforce this identity, but also be resisted, depending, among other things, on the level of group identification ('I belong to the feminist movement'), the self-construal level ('But I'm not very much like other feminists, am I?'), the social context, and whether the profiling is in line with recent behaviour ('It's been too long since I brought up discrimination of women in our staff meetings');
- machine profiling differs from human profiling in that the constraining of actions is often invisible, because the subject is unaware of being profiled; this invisibility and lack of conscious awareness do not imply that a person's idem- and ipse-identities are not affected. If – due to invisible machine profiling – a person is treated differently in a way that increases her risks or reduces her opportunities ('I never get an interesting assignment these days, there must be something wrong with the way I behave professionally'), her identity will develop differently ('Maybe I am better at taking orders than in acquiring new assignments').
- resisting a profile is easier when one is consciously aware of being profiled; in contrast to the situation where Li-lian Cheung is profiled as a secretary and where she can embrace or resist this profile, machine profiling is often invisible and in as far as we cannot find out why we are treated in a certain way, it becomes difficult to effectively resist the profiles that motivated the treatment; this underlines the importance of Transparency-Enhancing Technologies (TETs).

These findings based on the theoretical approach taken in this report need to be further elaborated and tested. The concepts of *idem*, *ipse* and *me* need to be further developed to come to a more concrete conceptualisation of identity-construction in the face of invisible profiling. The theoretical overview of *idem*-identity and *ipse*-identity in relation to profiling of this report will therefore be followed-up by a more practice-oriented report (D7.14b), in which we will further scrutinize the insights of *idem*, *ipse* and *me* and apply these to various profiling practices.

1 Introduction

Mireille Hildebrandt and Bert-Jaap Koops

In this report, the concepts of *idem*-identity* and *ipse*-identity*, coined as such by Ricoeur*, will be explored to show that they are important conceptual instruments to clarify the potential impact of profiling technologies on the construction of one's identity*.

Following the definition of the right of privacy as advocated by Agre and Rotenberg (2001:7), the right to privacy can be seen as

> 'the freedom from unreasonable constraints on the construction of one's own identity'.

To investigate whether profiling could qualify as an unreasonable constraint, we need to understand how we construct our identity in relation to our human and nonhuman environment. This could bring us into the field of neuropsychology and the philosophy of mind, the playground for many debates on whether the 'self' is a substance, a perspective, a process or merely an illusion.[1] This means that any position we take will be controversial. There is no ultimate proof of what identity 'really' is.

Rather than attempting a neurological understanding of identity construction, we opt for a philosophical and sociological approach, leading to a relational and non-essentialist understanding of human identity. It is interesting to note that, philosophically speaking, the relational notion of identity, and the relational notion of privacy, have arisen in a later stage of modernity (Altman 1975, Nissenbaum 2004). At the same time, sociologically speaking, the notion of individuals who are, in principle, free to develop themselves, is a typically modern invention, in contrast to, for example, feudal systems where social determinations leave little room for people to develop any real kind of selfhood or personal freedom. This connection to social constraints is relevant to underline, since some developments in late-modern society might introduce new but invisible constraints similar to rigid social stratifications. Both Foucault's (1978) notion of self-internalisation of discipline through the architecture of the panoptic society, and the machine profiling in Ambient Intelligence that is a focus of this report, concern fundamental social changes that might re-introduce in society, in different ways of course, determinations that citizens were liberated from with the rise of modern society.

One of the crucial points of holding on to a relational and non-essentialist position is that human identity is neither fully determined nor entirely chaotic or non-existent, but fundamentally *under*determined. This means that we avoid naïve voluntaristic positions that proclaim the self as a sovereign over its own choices (which would lead to an untenable understanding of self-determination). It also entails that we reject a mechanical, deterministic

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* Words marked with an asterisk (*) are explained in the Glossary at the end of this report.

[1] For an overview on the different positions see e.g. David Chalmers' 'Guide to the Philosophy of Mind', at http://consc.net/guide.html. Chalmers is editor of Philosophy of Mind of the *Stanford Encyclopedia of Philosophy* (http://plato.stanford.edu/contents.html). See Changeux and Ricoeur 2000 for clarification of Ricoeur's position and Varela, Thompson and Rosch 1991 for a position close to Ricoeur. See also section 3.6.1 on 'The New Unconscious'.

understanding of identity, which not only contradicts our contemporary intuitions about morality and political choice but also denies the apparent creativity that is part of human action. This fits with Agre and Rotenberg's (2001) definition as well as with the core tenets of constitutional democracy.

If identity is a construction, this implies that it is not given in advance; that identity is not some sort of essence or substance that can be located somewhere in time and space, even if it is always embodied in the human body. Identity is also not immutable, but is built and rebuilt in the course of one's life. Identity is fundamentally relational; its relations with the rest of the world may constrain the self* but these relations are also constitutive of identity. In speaking of a relational conception of identity we acknowledge that the construction of the self is not something we accomplish on our own, but which happens in the constant and often unexpected interactions with one's human and nonhuman environment. For the purpose of our deliverable it is important to move beyond purely social constructivist approaches to identity: we aim to explore how the interaction with non-human profiling (i.e., automated profiling that 'runs' without human intervention) impacts identity.

This exploration is conducted from various perspectives. In Chapter 2, we describe Ricoeur's concepts of *idem*-identity and *ipse*-identity, and build on Ricoeur as well as on Mead and Varela to provide a philosophical view of how our 'sense of self'* is constructed. Identity construction relies on a process of double anticipation: our identity depends on the fact that we profile how we are being profiled by others. Chapter 3 builds on this to address the question how profiling can be resisted. Using insights from philosophers like Foucault and Stiegler, a narrative identity* – 'me' as constructed in relation to others in time and space – is proposed as the meeting point of *idem* and *ipse*; it is the interplay between *idem*-identity and *ipse*-identity that enables a person to construct her identity in the face of being profiled. Then, in Chapter 4, we move to social psychologists like Erving Goffman and Henri Tajfel to discuss the social processes of stereotyping and labeling and show how these affect our identity construction. This sheds light on long-existing processes of *human* profiling*, as a mirror for the analysis of *machine* profiling* discussed in the previous chapters. Finally, in Chapter 5, we bring together these various strands to sketch a tentative conceptualisation of identity construction in relation to human and machine profiling. We indicate in what respects the concepts of *idem*, *ipse* and *me** need to be further developed with regard to machine profiling, and we mention some issues that should be further researched to understand identity construction in the age of machine profiling.

This theoretical overview of *idem*-identity and *ipse*-identity in relation to profiling provides a conceptual basis for more practice-oriented follow-up work. In FIDIS deliverable D7.14b, we will further scrutinize the insights of *idem*, *ipse* and *me* and apply these to various profiling practices.

2   Where *Idem* meets *Ipse*: Conceptual Analysis

Mireille Hildebrandt

2.1 Introduction

In this chapter we will investigate from a phenomenological and analytical perspective:

- how *idem* identities and *ipse* identity meet and intertwine at the level of the *ipse* (self), and

- how the way we profile others as profiling us in everyday life is co-constitutive of our sense of self.

To clarify this we use Mead's distinction between the 'me' and the 'I'* which – together – constitute the self in a reiterant process of self-construction. The key message of this chapter is that profiling produces a number of '*idem*'-identities that may or may not be accepted and integrated in a person's sense of self, thus co-constituting our identity. After explaining how this 'works' we can proceed to investigate if and to what extent machine profiling is different from human profiling (which is called stereotyping and social labeling by psychologists), and how this difference could affect the construction of the self.

2.2 Identity as identifier and identity as 'sense of self'

Within FIDIS research, the term 'identity' is often used to refer to an identifier*, or – in other words – a token for identification. In that – practical – sense an identity can consist of something we possess (e.g. a smartcard), something we know (e.g. a password) or something we are (e.g. a genetic profile).[2] An identity can be termed unique (1) in the sense that it individuates a person amongst a population (unique identification), or (2) in the sense that the same identifier is used across different contexts (unique identifier). To confuse matters further, the term identity is often used to refer to the unique set of attributes that makes up a particular person, *to which an identifier refers* by using a subset of attributes that is sufficiently discriminating to individuate a subject. In that case the identity of the person is understood as the complete set of attributes which uniquely describes her and this is what the identifier (often also called identity) refers to.

The identity of a person, in the sense of the set of attributes that uniquely describes her, is not identical in the course of time and can only be determined from a third person perspective (the attributes are attributed, even if this third person perspective is taken by the person it concerns).[3] This implies that different people or different organisations may use different

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[2] See e.g. FIDIS deliverable 2.1.

[3] To grasp the fact that our descriptions of our self are a matter of a subject (first person perspective) taking a third perspective (looking at the self as an object of reflection), see Pirandello's novel (1992; original 1926) *One, No One and One Hundred Thousand*. In this novel a man stands in front of a mirror looking at a nostril, and after pressing his nose, feels a slight pain inside. His wife laughs and tells him he always had a crooked nose. His wife's remark is shattering because only then does he notice the crookedness of his nose. When he realises that other persons see him differently from the way he has always seen himself he develops what we would now call an 'identity-crisis'.

descriptions of a person,[4] while the identity attributed to a certain person may change over time even if it concerns the identity of the same person at the same point in time. The identity of a person in this sense is the identity as perceived by an observer. Interestingly, this observer may be the person it concerns (self-identity). In fact this is how we build and rebuild our identity: by integrating a variety of third person perspectives on our self. According to George Herbert Mead (1959/1934)* a first person perspective on the self is co-constituted by the third person perspectives this person encounters, and by integrating them into her own perspective of herself, she constitutes what Mead called: the 'me'.[5] This 'me' is co-constituted by the 'I', the first person perspective, which incorporates the variety of third person perspectives it encounters and develops. The integrated variety of third person perspectives has been coined 'the generalised other' by Mead. For Mead, the self is the combination of I and me, whereby the 'me' is continuously reconstituted in the face of changing third person perspectives on the self.[6]

Some authors have rightly objected that in speaking of an integrated 'me' and a 'generalised other'* one could easily fall prey to the idea that the self is always coherent and that it is in fact possible to determine the full set of attributes that uniquely describes a person. We agree that this is not the case: the extent to which the 'me' is coherent will depend on the circumstances in which a person has found and finds herself and on the way her 'I' responds to the many images/profiles that she detects others to have of her. Shibutani (1955) replaces Mead's notion of the 'generalised other' with the notion of reference groups*, thus emphasizing that overall coherence is not to be expected.[7] Such reference groups can explain the different roles a person plays, such as father, employee, sportsman, consumer etc. These roles constitute partial identities that depend on the context in which they are being used. Actual coherence of and between these different partial identities will vary over time, sometimes requiring hard work to prevent a disintegration of the self: war and natural disasters that uproot one's social and material environment, and more or less existential changes in one's environment like a divorce, death of a beloved one, moving house or job all challenge the coherence of our sense of self. This coherence consists of the extent to which we can experience different roles and life events as pertaining to 'our' self and 'our' life. It requires us to weave different events into an auto-biography in order to provide meaning to these events as part of one's 'own' life. The next chapter will investigate how this generates

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[4] Hansen and Pfitzmann (2008) define identity as 'any subset of attributes of an individual person which sufficiently identifies this individual person within any set of persons. So usually there is no such thing as "the identity", but several of them'.

[5] For a clarifying introduction to Mead, see Aboulafia, Mitchell, "George Herbert Mead", The Stanford Encyclopedia of Philosophy (Summer 2008 Edition), Edward N. Zalta (ed.), forthcoming URL = http://plato.stanford.edu/archives/sum2008/entries/mead/.

[6] The fact that the me is constituted by integrating third person perspectives does not imply that the me necessarily complies with societal influences. On the contrary, it can integrate such perspectives together with their rejection. To reject or resist something, however, one needs to have some awareness of it. See Chapter 3 below.

[7] See also Van den Berg (forthcoming). One can object that this merely shifts the problem, since reference groups can be more or less homogeneous or coherent. Instead of discarding the need for coherence it makes more sense to acknowledge that without a measure of coherence and continuity any reference frame and 'sense of self' loses their meaning.

the narrative structure of self-identity. Evidently different persons will have a different appreciation of coherence; while some may enjoy what they experience as a creative chaos and dynamic reconstruction of the self, others may abhor both incoherence and change. All this means that a final description of the full set of attributes that describe a person can not be given, neither by an observer nor by the self. In relatively stable circumstances however, the continuity of the self (its identity with itself) is enough to provide apt descriptions that serve their purpose. This is more a matter of pragmatics than of ontology (in the metaphysical sense of the word): one's identity is not a substance but a fluid process of reconstruction that requires energy and creativity to sustain itself.[8]

2.3 The impact of being identified on the 'sense of self'

The relationship between 'I', 'me' and 'generalised other' (or 'reference frames') suggests, as described above, that identity (in the sense of the description of a unique set of attributes) does not necessarily pre-exist the identifier that refers to it and implies that the way identifiers refer to our identity is co-constitutive for our identity. As a matter of fact, there is a political dimension to the constitution of our identity, as one may doubt whether we had a unique identity in the sense of a set of attributes that uniquely describes us before the state invented the need to identify its citizens as its citizens (Torpey 2000, Caplan and Torpey 2001, Scott 1998). In line with this one can assume that we also had a different kind of identity before business enterprise was faced with the need to identify people in order to ensure that they fulfil their contractual obligations in online environments. To investigate to what extent our identity is co-constituted by the ways governmental agencies and business enterprises identify us, we will take a first person singular perspective: we will reflect on our identity as our 'sense of self'.[9] The first person experiential perspective on identity constitutes an experience of continuity concerning 'our' self. The 'I' that thinks of herself as the same self, has a continuity that allows her to think of 'me' as a part of the *same* self, despite the dynamic character and the multiplicity of what she experiences as her self. Despite the fact that we play many roles that evoke different identifications and despite of the fact that these roles are not static, we think of ourselves as (1) being the same person in the course of time and as (2)

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[8] Ontology in computer science has an entirely different meaning than in philosophy. In philosophy, ontology denotes 'the philosophical study of being in general or of what applies neutrally to everything that is real. It was called "first philosophy" by Aristotle in Book IV of his Metaphysics. The Latin term ontologia ("science of being") was felicitously (and independently) invented in 1613 by two German philosophers, Rudolf Göckel (Goclenius) and Jacob Lorhard (Lorhardus). It entered general circulation after being popularized by the German rationalist philosopher Christian Wolff in his Latin writings, especially Philosophia Prima sive Ontologia (1730; "First Philosophy or Ontology")', see "Ontology", Encyclopædia Britannica. 2008. Encyclopædia Britannica Online. 25 July 2008 <http://www.britannica.com/EBchecked/topic/429409/ontology>. 'In both computer science and information science, an ontology is a formal representation of a set of concepts within a domain and the relationships between those concepts. It is used to reason about the properties of that domain, and may be used to define the domain', see http://en.wikipedia.org/wiki/Ontology_(computer_science).

[9] This could be seen as a phenomenological perspective, as it implies a reflection on the self as we experience it, instead of an attribution of characteristics. Cf. Hünefeldt 2005 and Cass and Vandevelde 2003.

different from any other individual person. We experience identity in the midst of difference, and this identity consists of *the perspective from which we view both the world and ourselves rather than a 'substance' that is already 'in there'*.[10] In fact, a first person perspective is the condition of possibility for any other, more objective (third person) perspective. This is not only relevant in the case of identification in the narrow sense of individuation. It is also highly relevant in the case of a person being profiled as a particular person, i.e. a particular type of person. While identification in the narrow sense of a unique identifier is a matter of individuation, identification in the sense of profiling* is a matter of categorisation. It identifies a person as a father, a doctor, a person with blue eyes, a person with a disposition to aggressive behaviour, a person with a certain earning capacity, a person with a preference for blue cheese, an illegal immigrant etc. When speaking of profiling in the sense of data mining or knowledge discovery in data bases (KDD) the identification of a person as a certain type of person is based on probabilities, inferred from data aggregated in large, dynamic data bases. Profiling can link data across a number of contexts, e.g. correlating data about behavioural biometrics with Parkinson disease, or about a certain driving style with proneness to accidents. The categorisation of individuals that is made possible by profiling technologies, can be used for marketing or security purposes or for refined price-discrimination. Certain offers will depend on how one is categorised and especially if one is not aware of being 'known' as part of such a category one could be manipulated into behaviours otherwise not likely to be chosen. We can think of Zarsky's (2002-2003) example of a person trying to stop smoking, who is profiled as such on the basis of his online behaviour. This profile can be sold to a tobacco company that may invest in some free samples to be added to this person's next online grocery order, while the person may also receive links to scientific articles claiming a reduction of dementia in old age for consistent smokers. Taken by themselves these are not harmful interventions, but if the person is not aware of the 'knowledge' on which this is based, it seems to threaten his autonomy and to impact her identity (e.g. as a potential non-smoker).

2.4 Idem and Ipse: the construction of a 'sense of self'

In several deliverables within work package 7 we have used the concepts of *idem* and *ipse* to clarify why profiling makes a difference,[11] also in the case that no apparent abuse is made of the profiles that have been mined. These concepts have been coined by the late French philosopher Paul Ricoeur* (1990) in his *Oneself as Another*.[12] This title refers to the fact that

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[10] This is an important point to be made, since identity is often understood as referring to a substance (a Cartesian *res cogens*), an essence that is given before social intercourse takes place. We think that the Cartesian partition between a *res extensa* (a material world ruled by causality) and a *res cogens* (an immaterial world of the mind, ruled by free will) is untenable and gives way to an intellectualist or empiricist understanding of identity. Cf. Merleau-Ponty's position in his *Phenomenology of Perception* (1945), see Jack Reynolds, *The Internet Encyclopedia of Philosophy* at http://www.iep.utm.edu/m/merleau.htm (last downloaded at 5th September 2008).

[11] This does not imply that profiling is either good or bad, but to find out in which circumstances it could raise undesired consequences we first have to understand the difference it makes.

[12] For a clarifying introduction of Ricoeur's position, see Dauenhauer, Bernard, "Paul Ricoeur", The Stanford Encyclopedia of Philosophy (Winter 2005 Edition), Edward N. Zalta (ed.), http://plato.stanford.edu/archives/win2005/entries/ricoeur/.

the construction of our self-identity is mediated by the way we perceive others to perceive us. The idea is that we do not have direct access to our 'self', but build our selves in a recurrent process of being confronted with what others expect from us. In terms of profiling we can rephrase the central insight of philosophers like Paul Ricoeur, George Herbert Mead and Helmuth Plessner as:[13]

> The construction of our identity is mediated by how we profile others as profiling us.

There is a *double anticipation** here that is crucial for an adequate understanding of what is at stake. Our identity is not built on how others profile us (as we have no unmediated access to this) but on how we profile others as profiling us. It is important to note that this double anticipation implies an awareness of being profiled, which – however – need not be conscious awareness. In most instances such awareness will be tacit (as it were 'under the skin'), meaning that the whole process develops autonomically (see e.g. Mathews 1997 about the pertinence of 'implicit' learning). The anticipation does not necessarily imply that we will try to meet the expectations that others have of us. Especially when we are consciously aware of how we are being categorised this allows resistance. Obviously, in order to resist the profiles that inform the behaviour of others towards us, we need to profile them in order to respond to them. We can qualify the inherent double anticipation as a learning process that allows a person to adequately respond to her environment. As Mathews (1997) indicates, most learning processes take place implicitly (unconscious awareness) rather than explicitly (conscious awareness). The problem of implicit learning can be that – in as far as a person is deliberately manipulated to implicitly learn specific behaviour – she will have difficulty to resist the manipulation. This could be one of the major draw-backs of machine profiling. Recent research within the cognitive sciences (Hassin et all, 2007) confirms that the relationship between behaviours, attitudes and the unconsciousness is far more complex than some of us may assume.

Using the twin concepts of *idem* and *ipse* it becomes possible to conceptualise

(1) an identifier as a tool that depends on the continuity, sameness of a person, from a third person perspective, taken by an organisation, state or service provider (*idem*-identity) and

(2) an identity as her sense of self (*ipse*-identity), being the first person's perspective ('I') on what she experiences as her own self ('me').[14] This is where *idem* meets *ipse*, because the 'I' is capable of taking a third-person perspective of her self.

We can now define identity as identifier and as sense of self in terms of *idem* and *ipse*:

- *Identity as identifier* is a matter of referring by means of a measurement, symbol or other token to what is *idem* about a certain person in the course of time, while different from every other person in the relevant population. If an individual or group profile is used as

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[13] The idea that we have no immediate access to our selves has been argued by Mead and Ricoeur and by the German philosophical anthropologist Helmuth Plessner (1975/1929).

[14] Cf. STI OECD working paper DSTI/DOC(2007)7, 28th Feb. 2008, At the Crossroads: Personhood and 'Digital Identity' in the Information Society, available at http:/www.oecd.org/sti/working-papers, at 8.

an identifier it refers to an inference of what is *idem* about a certain person, both in the course of time and in comparison to others that are *idem* in the same way.[15]

- *Identity as the sense of self* of an individual depends on an 'I' getting in touch with its 'me', constituting the *ipse* of the person. As described above, the 'me' of a person is understood in terms of what George Herbert Mead called 'the generalised other', it is always mediated by how one profiles others to profile one's self. This means that the 'me' is co-constituted by how we think that others identify us, i.e. view us as *idem* (in the course of time as well as in comparison with others).

This means that we should not understand *idem* as external identity and *ipse* as internal identity, because to develop a self, we need to integrate external perspectives. The self emerges in the interplay between internalised external identities and externalised internal identities. *Ipse* refers to 'selfhood', it is both about *being* a 'self' or an 'I' (the first person perspective from which I perceive the world and act in the world) and about *having* a 'self' or a 'me' (the self as perceived by the 'I'). The 'I' cannot be defined or determined, the 'me' is a dynamic construction that is rebuilt continuously in daily intercourse with one's environment. 'I' and 'me' are relational notions, they emerge as such in the course of one's life, nourished by the objectifications made possible by the use of language.

Idem and *ipse* meet in the 'me', which is permanently reconstructed in the interactions between a self and its environment. As I profile how others profile me, I build up an image of my self, continuously adapting it to new information and knowledge about my self and the environment in which I have to survive. The 'me' is how 'I' identify myself.

Idem-identity is the third-person attribution of sameness; it takes an objectified perspective (thus, however, depending on a subject that objectifies). This perspective is exemplary for scientific analysis and for bureaucratic objectification, it nourishes on classification and categorisation.

Ipse-identity depends on a first-person perspective on what is *idem* (continuous, the same) about oneself, while experiencing multiplicity and difference. This perspective is exemplary for a phenomenological analysis, it takes 'lived experience' as its default position.

By acknowledging that these two perspectives cannot be reduced to each other and actually depend on each other, we can now investigate how the dynamic construction of *idem*-identities in the form of profiling could impact the building of one's *ipse*-identity. We should clarify that this investigation cannot restrict itself to an empirical or rationalist scientific exercise, as this would give a monopoly to the *idem*-perspective. At the same time we should not allow the phenomenological perspective to monopolise the analysis. Instead we should invite a diversity of perspectives: analytical, hermeneutical, empirical and phenomenological methods of investigation should be allowed to inform a rich canvas of what profiling could mean for the construction of selves in the era of the data base.

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[15] A group profile cannot be used as an identifier of an individual person, unless it is combined with other group and/or individual profiles in a way that is unique for this person. Even in that case the identification is based on shared characteristics that allow for comparison, thus enabling individuation. For instance, DNA identification depends on the fact that a population shares the feature of having DNA of a certain type that displays enough variation to individuate its members.

3   Resisting the profile?

Katja de Vries

3.1   Where is the 'I' that constitutes the possibility for double anticipation?

In the previous chapter on *where idem meets ipse* the focus has been mainly on the double anticipation (profiling how we are being profiled) which takes place in the meeting of *idem* and *ipse*. Thus, when a young female executive head of a large firm is mistakenly profiled as a secretary ('*Could you please copy these files and bring me some coffee?*'), she has a possibility to not simply internalise the gaze of others ('*Maybe I am indeed less competent than other executives and more fit for more simple tasks like making coffee*') but to counter profile ('*Ah, a typical male chauvinist pig who thinks that all cute looking girls must be mere secretaries – it's clear that I can be an important role model in emancipation*') making her identity a locus of resistance.

Here the notion of double anticipation is very helpful in debunking the myth of Cartesian *immediate* and transparent first person intuitions ('Even if I would have been born on a desert island and raised by wolves, I still would be an *emancipated woman* – because *I feel* that this is *what I truly am!*'). Instead it proposes that self-understanding is *mediated* by how we profile the world to profile our selves. *Self*-understanding, according to Ricoeur, is never an 'immediatiate intuition of the *I*' but always involves mediation by a 'long detour through objectification, making reflection a interminable Odyssey' (Ricoeur, 2008, p. 143). As Hildebrandt showed extensively in the previous chapter, the self (i.e., the 'me') is therefore never a static given but a dialectic process between first and third person perspectives.

The notion of identity-as-sameness (not only that one is, e.g., mistakenly taken for a secretary, but also: identification by your smart card, your character, your genetic code, your secret credit card code, etc.) has been extensively clarified in the previous chapter. So has the notion of a *dynamic self* arising from the *dialectics* of third person identifications (sameness or *idem*) and the first person perspective of the 'I'– at least if one is willing to *assume that there is an 'I'* !

However, the highly equivocal status of this 'I' – which according to Hildebrandt 'cannot be defined or determined' (see section 2.4) – has been paid only little attention. If, for instance, our young executive would have made a brave attempt to understand Ricoeur, she might have found herself wondering nevertheless: 'Is it *me* who thinks that I should be a role model in female emancipation, or is it my emancipated mother, the university class in *Gender Studies* and more than two centuries of Simone de Beauvoir and Mary Wollstonecraft talking *through* me?' After all, as the famous Latin saying goes: *ex nihilo nihil fit* (from nothing, nothing comes), suggesting 'that whatever exists now must have been preceded by something equally substantial' and that 'there is nothing truly new under the sun' (Deacon, 2006, p. 111). How then is it possible to conceive the 'I' which enables us – at least some of us, sometimes – to resist in a novel, unexpected or even ethical way without taking recourse to an unmediated, pre-given, sovereign 'I'?

Although it might be evident that novel forms of resistance to profiles *do* occur in our day-to-day life, it is not easy to see where and how a resistant – i.e. ethical and free – agency

suddenly can appear; e.g. *what* is it that enables our young female executive to resist the profile? In order to clarify this question I will turn in the following section to the later work of Michel Foucault on 'technologies of the self' and its relation with Ricoeur's understanding of the self.

3.2 Neither an exalted, nor a humiliated self – the subjectivist turn in structuralist thought

Made in the early 1990s by the philosopher Paul Ricoeur (Ricoeur, 1994) the distinction of *ipse*-identity and *idem*-identity is a philosophically extremely powerful and radical gesture with regard to the philosophy of the subject. Not only did Ricoeur conceptually clarify many centuries of philosophy on human identity by reformulating them into two broad categories, he also made a courageous attempt to *bridge* those two seemingly abysmally different branches. On the one hand Ricoeur identified the non-reductionist tradition of the 'exalted cogito' which assumes an autonomous, substantive, genuinely free Cartesian cogito capable of moral self-determination. On the other hand he saw the tradition of the 'humiliated subject' (Ricoeur, 1994, e.g. p. 11 and 16; 1998, p. 90) – where the *cogito* is 'shattered' (Ricoeur, 1994, p. 11 ff.) by the anti-metaphysical hammer of Hume, Wittgenstein, Nietzsche and social psychologists like Goffman*. It was debunked as being nothing more than a bundle of experiences, i.e., a grammatical habit of tying the sediment of cultural codes, technologies, identifications by others as 'such-and-such', social scripts, etc., to an illusory autonomous agency.

> We are habits, nothing but habits – the habit of saying "I." Perhaps, there is no more striking answer to the problem of the Self. (Deleuze, 1991, p. x)

Although the notions of 'shattered' and 'exalted' cogito are inventions of Ricoeur himself, it is clear that he picked up[16] on the philosophical enterprise begun by Foucault* during the eight years before his premature death in 1984. In those years Foucault tried to figure out how his structuralist and post-humanist understanding of man ('the self is nothing else than the historical correlation of the technology built in our history', Foucault, 1993, p. 222) could leave room for self-creation and transformation instead of implying that we are *merely* passively constituted by forces from the outside (Foucault, 1985, 1986; Martin, Gutman, & Hutton, 1988):

> Analyzing the experience of sexuality and the history of the experience of sexuality, I became more and more aware that there are, in all societies, other types of techniques, techniques which permit individuals to effect a certain number of operations on their own bodies, on their souls, on their thoughts, on their own conduct, and in this manner…to transform themselves. (Foucault, 'Truth and Subjectivity,' type-script available in the IMEC archive, Paris, France, document D.2(1), as cited in: (Paras, 2006, p. 122)

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[16] Ricoeur greatly admired the 'subjectivist' turn in Foucault's later works such as *The Use of Pleasure* and *Care of the Self* (Ricoeur, 1998, p. 79): 'It is to the extent that Foucault distanced himself from himself with his last two books that I felt closer to him'. Even though explicit references to Foucault in Ricoeur's *Oneself as Another* are scarce (nevertheless e.g. Ricoeur, 1994, p. 2: '[…] le souci de soi (care of the self) – to borrow Michel Foucault's magnificent title') the problems raised by the later Foucault are very present in the background, as can be deduced from the use of notions like 'le souci de soi' (Ricoeur, 1994, p. 3) and 'hermeneutics of the self' (Ricoeur, 1994, p. 16 ff.).

3.3 How to do it: Foucault's empowerment of non-sovereign subjects

How can one on the one hand declare that man is fully constituted by the disciplining discourses and technologies of schools, madhouses, churches and bureaucracies, and *yet* at the same time maintain the possibility that one is *free* to change those technologies which constitute one/s self (e.g. Foucault, 1993, p. 222-23)? How can one be manipulated into a certain behaviour and *yet* be free to act?

In order to answer this question we first have to distinguish between two kinds of manipulations: manipulation by *violence* and manipulation by *power* (Colas, 1992; Foucault, 1982). Thus, we could for instance imagine that we are forced by violence to drink *Coca Cola* by a person who puts a gun to our head ('Drink, or otherwise…!'). However, we could also be seduced into drinking the same soda by an almost irresistibly *powerful* advertisement campaign ('Drink *Coca Cola*'). The nihilistic outlook that there is in fact hardly any difference between violence and power ('Both are practices manipulating people into drinking *Coca Cola* and given the amount of people actually drinking *Coca Cola* the advertisement campaign is just a more cost-efficient way – gunmen are more expensive than colourful posters – to reach the same effect') overlooks the fact that what distinguishes violence from power is a certain indirectness, which opens up 'a whole field of responses, reactions, results, and possible inventions' (Foucault, 1982, p. 220). Simply forcing someone into sexual intercourse – rape – is an immediate and direct action; whereas manipulating someone into bed with irresistible perfume, seductive clothes and some flirtatious jokes not only *structures* the possible field of actions of the other but also *opens* up this space of possible actions:

> It is a total structure of actions brought to bear upon possible actions; it incites, it induces, it seduces, it makes easier or more difficult; in the extreme it constrains or forbids absolutely; it is nevertheless always a way of acting upon an acting subject or acting subjects by virtue of their acting or being capable of action (Foucault, 1982, p. 220).

Even when the next morning one feels tricked or misled ('In retrospect this is not what I wanted: who is this smelly, ugly gal?!' or 'The *Coca Cola* was not as good as they promised in the advertisement') the exercise of power can only be exercised over *free* subjects:

> …freedom must exist for power to be exerted […], since without the possibility of recalcitrance, power would be equivalent to a physical determination (Foucault, 1982, p. 221).

However, although it seems that the recalcitrance granted by this kind of *relational autonomy* is always reactive (shaped in response to its involvement in a power relation), the bold hypothesis – or maybe just the hope – put forward by the later Foucault is that there might be practices which do not only regulate the relations of ourselves towards ourselves, but also allow to change those practices themselves ('work carried out by ourselves upon ourselves as free beings' (Foucault, 1984, p. 47).

Thus one of the important aspects of Foucault's analysis of power is that it moves *beyond* the old dichotomy of 'free agency' versus 'structure', by showing that freedom of action does not follow the logic of naïve voluntarism. Thinking along with Foucault – even though this might sound astonishing to some 'fools' (Deleuze, 2000, p. 90; Patton, 1998) who are unable to think freedom differently – allows one to see how technologies and freedom actually presuppose and constitute each other:

> Three centuries ago certain fools were astonished because Spinoza wished to see the liberation of man,
> even though he did not believe in his liberty or even in his particular existence. Today new fools, or even
> the same ones reincarnated, are astonished because the Foucault who had spoken of the death of man took
> part in political struggle. (Deleuze, 2000, p. 90)

Freedom of action arises only after all kind of advanced elaborations, disciplinings, cunning tricks, operations and machinations have taken place (cf. Agamben, 2007): alphabets have to be learned (freedom of expression), exams for a driver's license have to be passed (freedom to go wherever you want), dozens of different types of lipstick fabricated and anti-conception applied (freedom to love). Before being able to write dadaistic poems one should first learn to read and write according to the rules – no freedom without constraints[17]. Without constraints there is nothing to bend or to surpass. Yet, not every technique, gadget, practice or device allows for the same kind of freedom: the capacities or possibilities allowed for by a pencil are different from those allowed for by a lipstick. However, new possibilities *will* be invented always – the lipstick to write down a phone number and the pencil as pin to put up one's hair – as survival requires resiliency and adaptivity.

What Foucault proposes is to create practices which could enable us to transform the practices which constitute who we are: 'a pragmatics of transformation that demands nothing less than a moment-to-moment awareness of the virtual nature of ourselves' (Varela, 1999, p. 75, expanding on Foucault). The question becomes thus *what kind* of technology, practice or gadget could *help*[18] our young female executive to experience the virtual nature of her practices and to re-create herself all the time, instead of merely clinging to a given identity (e.g. 'the fierce feminist role-model' or 'the stupid but lovely blond').

3.4   Narrative identity – where idem meets ipse

> [Foucault] sounds a clear warning about the dangers of the increasingly popular narrative conception of
> self. Without a critical capacity, such a model is going to succumb to the coercive discourses of
> modernity. However, it is not clear that Foucault's nonnormative, nonevaluative account of power can
> provide the necessary moment for critical reflection either. What Foucault needs is an aesthetic model
> with a critical capacity. This is what Paul Ricoeur tries to provide in his account of the narrative self.
> (Atkins, 2005, p. 209)

Not everybody was convinced by Foucault's hypothesis that there could be self-transforming technologies of the self – and some discarded it as an unfortunate relapse into the 'exalted' Cartesian subject or at best as an idea which has stayed unfortunately too sketchy and obscure as Foucault had not had the time to develop it (see e.g. Paras, 2006). This is where Ricoeur steps in, clarifying how such self-constitution takes place as a temporal, and thus existential,

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[17] See for an example of such an attempt to compare the different kind of freedoms allowed for by different techniques the recent book *Prendre soin de la jeunesse et des générations* (Stiegler, 2008) wherein, e.g., the 'inner space' that is created in reading and writing is compared to those that arise in playing computer games.

[18] A technology can never be said to be *intrinsically* liberating – in the end it depends on how it is practiced: 'Je ne crois pas, en revanche, à l'éxistence de quelque chose qui serait fonctionnellement – par sa vraie nature – radicalement libérateur. La liberté est une pratique' (Foucault, 1982/2001, p. 1094).

interplay between *idem*-identity (*sameness* or *mêmeté*) and *ipse*-identity (*selfhood* or *ipseity*) as two different sides of the same *identity* coin:

> Looking back, the greatest lacuna in our earlier studies most obviously concerns the temporal dimension
> of the self as well as of action as such. (Ricoeur, 1994, p. 113)

However, before focusing on the temporal interplay, we first need to take a closer look at the notions of *ipse*-identity and *idem*-identity.

Idem-identity ('*What* am I?', Ricoeur, 1994, p. 122) is more or less congruent with the ideas found within the realm of adherents of the 'shattered cogito' – it is the bundle of our experiences of how we are identified and mirrored by others as being the *same*: sameness in time ('I am still the same as I was yesterday') and sameness with others ('I belong to the category of male Swedish academics'). However, although Ricoeur does not propose that there is anything *outside* this *idem*-identity, he shows nevertheless how *idem*-identity gives at the same time rise to also a more existential experience ('*Who* am I?), which he calls *ipse*-identity. This *ipse*-identity involves taking up your *idem*-identity *as one's own*:

> …sameness is the permanence of a person's fingerprints, or genetic code; on the psychological level, it is
> what is displayed as character – the word "character," moreover, is interesting, being the term used in
> printing to designate an invariable form. While the paradigm for ipse identity is, for me, making a
> promise. I shall hold firm, even if I change. (Ricoeur, 1998, p. 89-90)

The question arises: *who* is it who appropriates the *idem*-identity as one's own; *who* promises to hold firm? Is Ricoeur as well still trapped by a spectral Cartesian *cogito*?

To be able to read the 'appropriation' and 'promising' in a non-Cartesian way one has to see how selfhood (*ipse*) and sameness (*idem*) meet in, as it is called by Ricoeur, *narrative identity* (Ricoeur, 1994, p. 140 ff.).

A way to clarify[19] what is meant by this 'narrative identity' is by taking a look at an event which happened approximately twelve thousand years ago: the Neolithic Revolution which turned the first nomadic hunter-gatherers into sedentary farmers. Between the shelter of a nomad and the home of a sedentary man there lays an abysmal difference in being – the difference between ephemeral life and a life of planning or foresight, i.e. of thinking both ahead and back in time which one could describe as *preserving in anticipation* (cf. Stiegler*, 1998) and investing in what is still to come. For example, 'Do not eat these seeds as we will need to plant them next year' and 'My son, you will inherit my axe, my plough and the land which I in turn inherited from my father'. This openness to time opens up a whole new space of relations to oneself: a way of relating one's finite, situated perspective to an 'immortal' domain of cultural patterns, language structures, tools, practices, etc. The revolutionary, and probably fully unexpected, epiphenomenon of this change to a sedentary lifestyle was an 'and' which is at the same time both *conjunctive* and *disjunctive** (Stiegler, 2007, p. iv); both uniting *and* separating, opening up a plane wherein both the 'I' *and* the 'We' arise at the same time; both *ipse*-identity (the disjunctive, finite 'and'*) and *idem*-identity (the conjunctive, infinite 'and'*). *I* am an inheritor of a past (i.e., a *conjunction* between me and a past) which

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[19] My reading of Ricoeur (Ricoeur, 1994) relies heavily on the work of Stiegler (e.g. Stiegler, 1998). See for Ricoeur's own explanation of the temporal dimension and the role of 'finite-infinite' in the emergence of narrative identity e.g. (Ricoeur, 1994, p. 120 ff.).

is not my past (i.e. a *disjunction* between me and this past) – at least in as far as it is a past (e.g. the Second World War, the French Revolution, Colonial History, but also the life of my grandfather, etc.) which has not been lived by me – but which is still constitutive of *my* future via the possibilities which I inherited from this past (Stiegler, 1998, p. 6; Barison and Ross, 2004; Simondon, 2007; see also Heller 1999, p. 2).[20] In the act of appropriation/promising ('I am a young female executive – and given the footsteps of Mary Wollstonecraft, Simone de Beauvoir, Cinderella and Snowwhite I envision a certain future for myself') the '*I*' is both constituted and dissolved within a '*We*'. Or as Deleuze puts it, reformulating Foucault:

> Memory is the real name of the relation to oneself, or the affect on self by self. […] The inside condenses the past (a long period of time) in ways that are not at all continuous but instead confront it with a future that comes from outside, exchange it and re-create it. To think means to be embedded in the present-time stratum that serves as a limit: what can I see and what can I say today? But this involves thinking of the past as it is condensed in the inside, in relation to oneself (there is a Greek in me, or a Christian, and so on). (Deleuze, 2000, p. 107 and p. 119; referring to Foucault, 1985, p. 9)

Here Deleuze might be of help to our young female executive. After reading this, she suddenly realizes: 'Through the challenge posed to me by being taken for a secretary, suddenly all kinds of things came together in my mind: my emancipated mother, the diary I kept when I was little and wherein I wrote that I wanted to become a princess, the university class in *Gender Studies* and more than two centuries of Simone de Beauvoir and Mary Wollstonecraft in me – forcing me to show what I am *now*!'

> We will then think the past against the present and resist the latter, not in favour of a return but 'in favour, I hope, of a time to come' (Nietzsche), that is, by making the past active and present to the outside so that something new will finally come about, so that thinking, always, may reach thought. Thought thinks its own history (the past), but in order to free itself from what it thinks (the present) and be able finally to 'think otherwise' (the future). (Deleuze, 2000, p. 107 and p. 119; referring to Foucault, 1985, p. 9)

Every time when *we* – or should I say *I*? – perform this so seemingly simple act of going hence and forth between 'I' and 'we' we traverse a whole technological constellation of memorization and anticipation like heuristics of memorization (e.g. Yates, 2007), memorials, relics, books, tools, computers, houses, etc.: which constitute the 'and' in between a finite 'me' and an infinite 'we'.

Thus, every time the here-and-now forces me to reformulate who I am (e.g., the war in Afghanistan forces a child from a US mother and a father from Afghanistan to reformulate what it is) I have to do this in terms of an *idem*-identity which never completely covers what and who I am *right now*: 'I am American (*idem*-identity) – that is an identity created by e.g. the songs I used to sing in primary school, my passport and the television series I watch – but what is it to be American *here and now* (*ipse*-identity)?'

3.5 Once again: the 'Me' – or where 'idem' and 'I' meet

In the beginning of this chapter I posed the question *what* it was that enabled our young

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[20] Stiegler nourishes on the radical changes in the experience of time, place, in human memory, and in the constitution of the self of both human beings and their communities. This compares well to the work of Ong (1982), Ricoeur (1990/1994) and Levy (1995) as discussed in FIDIS deliverable 7.9, on Ambient Law (Hildebrandt and Koops 2007, chapter 3).

female executive to resist the profile. How can a resistant 'I' exist? In order to clarify this question we first introduced Foucault's understanding of power and his so-called 'technologies of the self' in order to show the deceptive nature of the structure-agency dichotomy, arguing that freedom can only arise given certain constraints. Armed with Foucault, Ricoeur's distinction between *idem* and *ipse* was further clarified. It turned out that *ipse* is the existential or finite understanding of *idem*, i.e. *idem* such as confronted with the here-and-now. However, this also implies that without *idem*-identity there can be no *ipse*-identity: if I am not aware of being identified as an American, the question what it is to be an American *here and now* will never arise; and without the *ipse* there can be no 'me' of double anticipation either. Thus, *idem*-identity is a necessary but not a sufficient condition for *ipse*-identity.

3.6 An outsourced anticipation

3.6.1 Loss of anticipation

As we saw earlier machine profiling based on data mining techniques allows for a kind of profiling which leaves the profiled person unconscious of the profiling – which could affect the 'me' as a locus of double profiling in as far as anticipation of the profiler becomes impossible. Apart from this effect on the 'me', machine profiling could possibly also affect the temporality of the *idem/ipse* entanglement (i.e., the conjunctive/disjunctive 'and').

The feeling of being 'lived' by your agenda or your secretary might become enlarged exponentially when a large part of the day-to-day anticipation is outsourced towards smart decision-making software. While from a bird's eye perspective a certain anticipatory way of living might be maintained in this way (the automated farm makes sure that seed is kept apart and sown according to plan, the smart fridge orders the right amount of milk, the GPS system anticipates the traffic jam and makes the car take a detour, the smart umbrella indicates that it would be wise to take her with you given the weather forecast), but the difference on an individual level is that the anticipation is placed outside the realm of human experience, making the *ipse/idem* entanglement less present.

This is not to say that such outsourcing of anticipation (one could say as well: 'a Taylorism of anticipation') would make life less convenient: *AmI* propagators do not grow tired of pointing out how life could actually become much more convenient if one would be freed of the mental burden of bothering about trivial stuff like turning on lights, making coffee, ordering groceries, etc. (e.g., Weiser, 1997; 1996):

> The house of the future will become one giant connection to the world – quietly and unobtrusively, as
> naturally as we know it is raining, or cold, or that someone is up before us in the kitchen making
> breakfast. (Weiser, 1996)

Yet, with regard to Foucault's vision of 'a practice of self transformation' creating a type of man which would be *freer* than we are now, machine profiling seems to be of little help because such practice of self-transformation would probably require *more* internalised anticipation ('a pragmatics of transformation that demands nothing less than a moment-to-moment awareness of the virtual nature of ourselves', (Varela, 1999, p. 75, expanding on Foucault) instead of a less internalised anticipation.

3.6.2 The new unconscious

In recent years, cognitive psychology has extended its research into what could be coined as 'unconscious awareness', sometimes referred to as 'adaptive unconscious' (Wilson 2002), 'unconscious thought' (Dijksterhuis and Nordgren 2006), 'nonconscious control' (Hassin, Uleman and Bargh 2005), 'intuition' or 'gut feelings' (Gigerenzer 2007). The idea is neatly summarized in the subtitle of Gigerenzer's book on *Gut Feelings* (2007): *The Intelligence of the Unconscious*. Experiments indicated that complex cognitive tasks, involving choices about courses of action, are better performed when the unconscious mind had some time to work things out as compared to the performance of the conscious mind in a process of deliberation (Dijksterhuis and Nordgren 2006). The 'traditional' idea that rational deliberation will come up with better decisions than 'irrational intuition' turns out to be flawed to the extent that the unconscious mind is capable of processing *more* information, much *faster*, while it also benefits from developing the capacity to pick on the relevant 'rule of thumb' that is *effective* in a particular environment (Gigerenzer 2007). Though 'nonconscious control' may seem to be an oxymoron to those who cherish the notion of a sovereign subject that rules the self on the basis of a conscious rational mind, the findings generated by cognitive psychology indicate that many – if not most - of our actions are controlled by an automated process of decision-making that does not reach the threshold of consciousness. Consciousness, we are told, is slow, has a very limited working memory and can process only a very restricted amount of information:

> As it turned out our senses can handle about 11 million bits per second. This whopping number is largely the result of our sophisticated visual system, which can handle about 10 million bits per second. The processing capacity of consciousness pales in comparison. The exact number of bits consciousness can process depends on the task. When we read silently, we process about a maximum of 45 bits per second (a few words); when we read aloud, it drops to 30. When we calculate (e.g., when we multiply two numbers), we can handle only 12 bits per second. Compared to our total capacity, these numbers are incredibly small. If we conclude that our consciousness can process 50 bits per second (which is optimistic) our total capacity is 200.000 times as high as the capacity of consciousness. (Dijksterhuis, Aarts, and Smith 2007:82)

The point here is not that free will is an illusion produced by the unconscious mind (as some cognitive psychologists do claim, e.g. Wegner 2007), but rather that the Cartesian, voluntaristic understanding of a free will does not 'exist'. The point is, moreover, that the freedom from unreasonable constraints on the construction of our identity, is a freedom that emerges in the interplay between conscious and nonconscious processes of the human mind and the environments in which this embodied mind has to cope with a myriad of threats and opportunities.

In as far as outsourcing conscious and unconscious anticipation to an intelligent environment disables conscious reflection it could reduce the scope for such freedom to emerge. If the research findings regarding the 'new unconscious'* demonstrate anything, it is the fact that the double anticipation that is constitutive for our sense of self depends to a large extent on automated nonconscious processes. If that is indeed a fact, then we should cherish our modest but crucial capacity for reflection even more ardently than we should if most of our actions depend on conscious intention. Taken to the extreme profiling machines that take over the anticipation 'normally' generated by automated behaviours could even turn us – at least with respect to the domain of action anticipated by machine profiling – into zombies, who become

paralysed if the environment stops its proactive stance. Most importantly, the research into nonconscious behaviour could provide detailed knowledge about how to manipulate a person into certain behaviours without any conscious awareness. The pertinent question is to what extent the unconscious mind is capable of resisting such manipulation and how this relates to human freedom.

3.6.3 The space and time needed to reappropriate an *idem*-identity as one's own

The perfect butler or secretary that serves you coffee even before you yourself realise that it is the slight dehydratation and lack of caffeine which is making you grumpy might cause a state of dependency – but claiming that such proactive employees turn you into a zombie incapable of thinking ahead would be absurd. Nevertheless, on first sight one could maintain that an *AmI* coffee machine is not different from a nineteenth century butler when it proactively anticipates you: both the coffee machine and the proactive butler take away the need to think for yourself (i.e. you *outsourced* your anticipation with respect to coffee to your butler or your smart coffee machine) and both risk creating a ghetto of habits, ensnaring you in behaviour which was displayed by you or your peers on earlier occasions. However, the important difference between a nineteenth century butler and a *AmI* environment based upon real-time updated machine profiling is the timing, scale of data aggregation used and possibility to articulate the constructed *idem*-identity ("*She is the kind of person who needs a two o' clock coffee*"). Even though the nineteenth century butler might be proactively anticipate us, providing us with a cup of coffee so silently and so swiftly that his presence and anticipation does not reach our conscious level, the slow process of co-adaptation between a butler and his master allows for a rather straightforward counter profiling – thus in retrospect it probably be deduced quite easily *why* the butler served coffee (e.g., "*My butler knows my habits – he has worked here for the last forty years*"). Even though counter-profiling does not need to be necessarily on a conscious level, it nevertheless needs some time and a scale of information which is not to vastly aggregated: also intuitions or bodily need some time to arise and evolve. The underlying assumption in many of the early writings on *AmI* like environments seems to be that *AmI* is understood as a simple continuation of the era of butlers of secretaries wherein informational cues from the periphery can easily be moved to the conscious center of attention:

> A calm technology will move easily from the periphery of our attention, to the center, and back. […] the periphery is informing without overburdening. […] by recentering something formerly in the periphery we take control of it. […] By moving […] from periphery to center we are empowered to act, […]. (Weiser, 1997, p. 80)

However, if the *idem*-identities with whom we are anticipated are based on huge non-transparent databases and change so rapidly over time that they are to volatile to reach either a state of conscious awareness or even a bodily intuition, the possibility for the reappropriation of the *idem*-identity as an *ipse*-identity, i.e. as an *idem*-identity within the first person here-and-now, becomes obscured. Thus, it is important to note that the problematic aspect of *AmI* technology with respect to identity-formation is not likely to be located in the outsourced anticipation itself, or the fact that one is not consciously aware of the anticipation, but in a very particular opaque volatility which might endanger the possibility of taking up an *idem*-identity as one's own. Neither is it the *commercial* motives underlying the construction of

certain *idem*-identities which is problematic. As Badiou shows convincingly every *idem*-identification, always creates the possibility for commercial exploitation:

> For each identification (the creation or cobbling together of identity) creates a figure that provides a material for its investment by the market. […] What inexhaustible potential for mercantile investments in this upsurge – taking the form of communities demanding recognition and so called cultural singularities – of women, homosexuals, the disabled, Arabs! And these infinite combinations of predicative traits, what a godsend! Black homosexuals, disabled Serbs, Catholic pedophiles, moderate Muslims, married priests, ecologist yuppies, the submissive unemployed, prematurely aged youth! Each time, a social image authorizes new products, specialized magazines, improved shopping malls, "free" radio stations, targeted advertising networks, and finally, heady "public debates" at peak viewing times. Deleuze put it perfectly: capitalist deterritorialization requires a constant reterritorialization. Capital demands a permanent creation of subjective and territorial identities […]. (Badiou, 2003, p. 10-11)

The problem is thus not that based on machine profiling a "black homosexual" or a "moderate muslim" will be anticipated in a commercially profitable way (i.e. with targeted advertisements). Problems for the construction of one's *ipse*-identity only arise when the profiles changes so rapidly, involve such vast amounts of aggregated data and are so unarticulated (e.g., a group sharing a large amount of traits which are commonly not associated with each other: "black, catholic, ecologist homosexuals with a below average income") that there is no mental time or space to take this identity up as one's own in the here-and-now. It is at this point that the possibility to resist a machine profile will become seriously endangered.

4   The influence of profiling on an individual's identity

Isabelle Oomen

4.1 Introduction

Machine profiling is a relatively new phenomenon, but humans have always profiled other humans. How machine profiling influences the identity of individual has, as far as I know, not been empirically studied. In contrast, there are many studies about the influence of human profiling on the individual's identity. Therefore, this chapter focuses on the influence of human profiling on the individual's identity in order to make inferences about the influence of machine profiling on the individual's identity.

4.2   Identity

Many academics from various disciplines have written about identity over the past decades. Ricoeur, for example, has written about identity from a philosophical viewpoint, whereas both Mead and Goffman* have taken a sociological perspective of identity, and Turner and Tajfel* wrote about identity from a psychological angle. Although their theories differ from each other, they also have similarities. In this chapter the philosophical approach of Ricoeur (see Chapters 2 and 3) will be complemented and contrasted with insights from social psychology and sociology.

There are two sides to the concept of identity: the differences between the individual and others (i.e. individual identity) and the similarities the individual shares with others (i.e. structural identity). Individual identity refers to the uniqueness of a thing and structural identity refers to the properties a thing shares with other things (Glass, 2004). The qualitative identity of an individual, the sum of all those enduring properties which could serve as a criterion to distinguish an individual from other individuals (Glass, 2004; p. 348), encompasses both the structural identity and the individual identity since the properties of an individual are shared with other individuals but the sum of properties (i.e. the combination of properties) is unique.

As we have seen in Chapters 2 and 3, Ricoeur (1990) distinguishes two meanings of the self: *ipse*-identity and *idem*-identity. '*Ipse*' is regarded as a reflexive structure, as a self that exists by relating to itself. '*Idem*' is that what remains the same, or that which shows sameness of features in the course of time. These concepts are interrelated, for one implies the other and they meet in the character of a person. Character is defined by Ricoeur (1990) as the set of distinctive marks which permit the re-identification of an individual as being the same (p. 119) or as the set of lasting dispositions by which a person is recognized (p. 121). The character of an individual is thus the individual itself or '*ipse*'; but this '*ipse*' announces itself as '*idem*'. The qualitative identity of an individual, and hence the individual and structural identities, belong to the sphere of the *idem*-identity, for it remains the same, or shows sameness of features in the course of time.

According to Mead, identity (or the self) consists of two phases: 'the "I" and the "me". The "I" is the response of the organism to attitudes of others, the "me" is the organised set of attitudes of others which one himself assumes' (Mead, 1934, p. 175). The 'me' guides the behaviour of the socialized person, and this aspect of the self brings the influence of others

into the individual's consciousness. The 'me' is constituted by those perspectives on oneself that the individual has learned from others. As was shown in chapter 3, the 'I' is the spontaneous part of the individual that gives the impulse to act. The attitudes of the others are reflected in the organised 'me', and one reacts to that as an 'I'. The self, then, consists of the acting 'I' when the self is the subject and of the acted-upon 'me' when the self is the object. The 'I' and 'me' belong together, for the 'I' both calls out the 'me' and responds to it (Mead, 1934). '*Idem*' and '*ipse*' meet in the 'me', which is permanently reconstructed in the interactions between the 'I' and its environment (Ricoeur, 1990).

That environment or situation determines which social identity or social role is articulated because individuals have several social identities (i.e. one can be husband, teacher, soccer-trainer, and father). According to Goffman (1959), the individual defines the situation and acts upon this according to the behaviour that is expected of him by others, that is, one plays the social role he is expected to play. Because there are many different situations and since individuals are often members of different social groups, individuals have multiple social identities, and each social identity calls out the corresponding role that needs to be played (Goffman, 1959). That social identities are part of both the 'I' and the 'me' is shown by Tajfel and Turner (1979) in their Social Identity Theory. In this theory, Tajfel (1981) defined social identity as: 'that part of an individual's self concept which derives from his knowledge of his membership of a social group (or groups) together with the value and emotional significance attached to that membership' (p. 255). Our sense of self, of being a person, can come from being drawn into a wider social unit, but our sense of selfhood can rise through the small ways in which we resist the pull (Goffman, 1961).

4.3   Identity and others

Identity, thus, is partly social and that part is therefore influenced by others. There are three ways in which others influence this part of the individual's identity: interactions with others, profiling, and identification with others. In interactions with others, the individual gets feedback and learns about himself. This process is a two-way process from the individual to others and from others to the individual. The behaviour of individuals is acted upon by others and the individual gets information about his behaviour through the behaviour of others, i.e. the individual gets to know the view others have about him. If necessary, the individual will adjust his behaviour in order to trigger the desired feedback. The feedback we get from close or relevant others is valued more than feedback we receive from complete strangers. Therefore, only close or relevant others are able to influence the 'me' of an individual in multiple interactions and a cycle of behaviour and feedback (Mead, 1934).

Profiling can be defined as the attribution of a set of characteristics to a person, either inferred from some other, known, characteristics of this person, or from data of many other persons and things.[21] This (external) process is a one-way process from the other to the individual. If the individual becomes aware of this profile, he may act upon it in a way that is either consistent or inconsistent with the profile. The others in this scenario are more distanced others, known through sporadic interaction or even completely unknown to the individual.

Identification with others can also influence the identity of an individual. Individuals who feel

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[21] See further Hildebrandt and Gutwirth 2008, Chapter 2.

a sense of shared, merged, or interconnected personal identities with an other, see themselves as possessing many of the stable personality traits possessed by the other. This (internal) process is also a one-way process but in the opposite direction: from the individual to the other. Others in this scenario are close and relevant others but they are unaware and not directly involved in the identification by the individual with themselves (Goldstein & Cialdini, 2007).

4.4   Human profiling: stereotyping and labeling

Two types of human profiling can be distinguished and they both come from inferences about the sameness of an individual.

The first type, social profiling or stereotyping*, builds on the sameness between individuals. People often do not have the necessary time or psychological resources to analyze every fact as new and unique. Instead, people categorize almost everything they see, hear, and deal with. The incoming information is simplified and categorized by groups on sameness in the sense of similarity between objects or subjects. When this simplification and categorization is done on other people we speak of group profiling*, social profiling, or stereotyping. Stereotypes are categorical assumptions that all members of a given group have a particular trait (Shiraev & Levy, 2004). Stereotyping compares to what has been identified as (machine-generated) group profiling in *Profiling the European Citizen* (Hildebrandt and Gutwirth 2008, Chapter 2) or universal generalisation by Schauer (2003). If a stereotype is applied to a group, this would be direct group profiling, while if it is applied to an individual person it would be indirect individual profiling, which is what Schauer calls universal generalisation.

The second type of profiling, individual profiling*, builds on the sameness or continuity of the individual. Here, an individual is profiled on himself (future behaviour, for example, can be predicted by looking at the individual's past behaviour) (Hildebrandt and Gutwirth, 2005). Individual profiling, or social labeling*, thus relies on the assumption that past behaviour of the individual will guide his future actions (Cornelissen, Dewitte, Warlop, & Yzerbyt, 2007). This compares well to what has been identified as (machine-generated) individual profiling in *Profiling the European Citizen* (Hildebrandt and Gutwirth 2008, chapter 2). We should take note that social labels as well as machine-generated individual profiles may be inferred from group profiles, or inspired by stereotypes. In that case we can again speak of indirect individual profiling.

4.5   Human profiling and identity: the research question

As we have seen, the identity of a person can be influenced by others. In the case of profiling, for example, a profile others have of an individual may provoke behaviour of the individual that is either consistent or inconsistent with the profile. The profile, consisting of the perspectives that others have of a person or a group, can influence the 'me' of an individual because the individual builds the 'me' through the perspectives on oneself that the individual has learned from others. Because the attitudes of the others constitute the organised 'me', and one reacts toward that as an 'I', profiling can influence an individual's identity. This raises the question: what happens with the identity of an individual when an individual is profiled? In the remainder of this Chapter, I will answer the following question:

> To what extent and under what conditions does profiling influence an individual's identity?

To be able to establish the influence of profiling an individual's identity, both stereotyping and social labeling have to be examined. Stereotyping, and to a lesser extent social labeling, have been thoroughly studied in social psychology.

4.6   The influence of human profiling on identity

For a human profile to influence an individual's identity, it has to be internalized. When a profile is internalized, the profile becomes part of the individual's identity, and hence it influences the identity. Internalization of a profile takes place when an individual is aware of the profile and the individual perceives the profile as legitimate. Because perceived legitimacy of a stereotype depends upon other factors than the perceived legitimacy of a social label, they are discussed separately.

4.6.1 Awareness of the profile

Awareness of a profile can either be conscious or unconscious. Unconscious awareness of a profile is when an individual simply reacts to the behaviour of others without thinking about the behaviour of these others; it implies profiling how others profile us without conscious awareness. Most profiling probably occurs in this way (Mathews 1997). Conscious awareness of a profile means that the individual reflects on how she profiles how she is being profiled by others (i.e. she thinks about the behaviour of others towards her and she derives how others view her from their behaviour; see Chapter 2).

4.6.2 Legitimacy of a stereotype

Let us recall that stereotyping was defined as having the categorical assumption that all members of a given group have a particular trait (Shiraev & Levy, 2004). Three factors seem to be important for a stereotype to be perceived as legitimate or not: the *level of group identification*, the *self-construal level*, and the *social context*. The level of group identification is a crucial factor that determines the degree to which individuals are sensitive to group-related cues like stereotypes. Group identification is defined as the degree to which an individual identifies himself with a social group and considers himself to be a member of that social group (Stone, 1962; Verkuyten, 1999). A stereotype makes the differences between those who are part of the group and those who are not more salient and it unites the group members (Verkuyten, 1999). So, if the stereotype is perceived as legitimate by all group members, it will strengthen the ties within the group. If an individual has a higher group identification, stereotypes about that group are perceived as more legitimate because the stereotype accentuates the differences between 'us' and 'them' (Keller & Molix, 2008).

Another factor that is important for the perceived legitimacy of a stereotype is the self-construal level of the individual. The self-construal can be regarded as a bipolar dimension with the independent level of the self on one side and the interdependent level of the self on the other. The independent level of the self represents the aspects of the self-concept that differentiate the self from others. When this level of the self is activated, individuals tend to accentuate differences with others, i.e. contrasts are emphasized and exclusion mechanisms dominate. In contrast, the interdependent level of the self represents aspects of the self concept that reflect integration and inclusion of the self in the social world. When this level is activated, individuals tend to accentuate similarities with others, i.e. assimilation and inclusion mechanisms predominate (Markus & Kitayama, 1991; Keller & Molix, 2008). If an

individual has a higher interdependent self-construal level, stereotypes are perceived as more legitimate because the stereotype emphasizes the similarities between the members of the group (Keller & Molix, 2008).

The last factor that influences the perceived legitimacy of a stereotype is the social context. Here two aspects are important: the salience of the group's identity and the fit of the group's identity to the current activity of the individual. If the group's identity or group membership is more salient, the individual will accentuate the similarities between the group's members and the differences between those who belong to the group and those who do not. Therefore, the individual perceives the stereotype as more legitimate when the group's identity is more salient (Postmes & Spears, 2002; Pittinsky, Shih, & Trahan, 2006).

Another aspect that is important with respect to the influence of the social context on the perceived legitimacy of a stereotype is the fit of the group's identity to the current activity of the individual. As stated before, an individual has several social identities. The individual can be flexible in his identities, avoiding or embracing a group membership, and each activity calls a particular social identity to the forefront. If the stereotype refers to a social identity that is latent at the moment, the individual perceives the stereotype as illegitimate, whereas if the stereotype refers to a social identity that is manifest, the individual perceives the stereotype as legitimate (Postmes & Spears, 2002; Pittinsky, Shih, & Trahan, 2006).

Individuals have multiple social identities (Goffman, 1959) because they belong to several social groups, hence, any one stereotype, while chronic and pervasive, cannot be deterministic (Pittinsky, Shih, & Trahan, 2006).

4.6.3 Legitimacy of a social label

Social labeling relies on the assumption that past behaviour of the individual will guide his future actions and it can be used as a persuasion technique that consists of providing a person with a statement about his personality or values in an attempt to provoke behaviour that is consistent with the label. Research has shown that social labels, provided by others, can be an important source of information for the individual. The social label 'tells' the individual about his traits and values and it can therefore guide future decisions. The social label is perceived as legitimate when it follows recent behavioural evidence and when it is consistent with the initial self-schema of the individual. Individuals seek confirmation for their behaviour and if the social label is in line with recent behaviour, it is perceived as more legitimate. When the social label is consistent with the self-schema of the individual, i.e. the view the individual has about himself, the social label reinforces the self-schema of the individual and the social label is therefore perceived as more legitimate (Cornelissen et al., 2007).

4.6.4 Internalization of a profile

If the profile is perceived as illegitimate, the profile is not accepted (Cornelissen et al., 2007). Especially when the profile is negative, individuals may be highly motivated to challenge or reject this profile when it is applied to them (Keller & Molix, 2008). Challenging and rejecting a profile influences the behaviour of that individual, i.e. the individual is acting upon the applied profile. One could suggest that the rejected or challenged profile, however, does not influence the individual's identity when it is not accepted; as it only influences the individual's behaviour. So, one could imagine that the profile does not influence the identity of an individual. In fact, this suggests a separation between a person's identity and her

behaviour that is problematic. It presumes that there is a 'self' that does not identify with its own behaviour. Though this is possible, the behaviour may end up reinforcing the profile as a legitimate profile. However, if the profile is perceived as legitimate, the profile is accepted and acted upon. The profile is internalized by the individual and it reinforces that part of an individual's identity or becomes part of it. In social psychology the latter is known as the self-fulfilling prophecy, i.e. people's attitudes, beliefs, or assumptions about an individual can, with or without intent, actually produce the very behaviour that they had initially expected to find (Shiraev & Levy, 2004). Internalization of the profile can either be functional or chronic. Functional internalization refers to the internalization of a profile as a short-term, situational endorsement that occurs as a function of the individual's need in a particular situation. Chronic internalization of a profile refers to the internalization of a profile as a long-term, dispositional endorsement that occurs across varying situations (Burkley & Blanton, 2008).

Both positive and negative profiles may be internalized. If a positive profile is applied to and liked by an individual, it is likely that the profile is accepted and internalized because it enhances the self-esteem of the individual. Negative profiles are not always challenged or rejected. They may be embraced as explanatory mechanisms for failures (e.g. a blond girl is miscalculating herself and says 'You know blonds are dumb' or 'You know women can't do math'). Attributing failures to a stereotypic group can buffer an individual from social rejection. So, the group is sacrificed to save the self (Burkley & Blanton, 2007).

4.7 Machine profiling

We cannot assume that the mechanisms that determine the internalization of a human profile also determine the internalization of a profile generated by data mining*, because these profiles differ in at least three respects. First, the profile that stems from human profiling refers to a real person, whereas a profile created by data mining only represents an individual when it is applied to that individual. From the perspectives of Chapters 2 and 3, the difference between a 'real person' and a 'person to whom a profile is applied' is less pertinent. In both cases the profile of a person is mediated by stereotypes (group profiles) or social labels (individual profiles). Second, an individual may be less or not at all consciously aware that she is machine profiled than that she is profiled by other humans because the technical possibilities and practices of mining data are opaque for most individuals. Third, others are only able to profile an individual on her appearance and behaviour whereas data mining can create a profile using any information available in data bases.

4.8 Conclusions

The identity of an individual consists of an *ipse*-identity that is intertwined with a number of dynamic *idem*-identities. Profiles, irrespective of whether they are the result of machine profiling or human profiling, are *idem*-identities (see Chapter 2). These *idem*-identities or profiles are able to influence the *ipse*-identity of an individual. Two types of profiling were distinguished: social profiling or stereotyping and individual profiling or social labeling. To influence the identity of an individual, the individual has to be aware (consciously or unconsciously) of the profile and perceive the profile as legitimate. Three factors are important for a stereotype to be perceived as legitimate: the level of group identification, the self-construal level, and the social context. Of the latter factor, two aspects were discussed: the salience of the group's identity and the fit of the group's identity to the current activity of the individual. For the legitimacy of a social label, two factors are important. A social label is

perceived as more legitimate when it follows recent behavioural evidence and when it is consistent with the initial self-schema of the individual.

If the profile is perceived as illegitimate, the profile is not internalized and hence it does not influence an individual's identity. This profile, however, can influence an individual's behaviour. However, as observed above, from the perspectives of Chapters 2 and 3, the relationship between a person's identity and her behaviour is probably too complex to take this separation for granted. When the profile is perceived as legitimate the profile is internalized, either functionally or chronically. Because functional internalization refers to the internalization of a profile as a short-term, situational endorsement that occurs as a function of the individual's need in a particular situation, a profile that is internalized functionally influences the *idem*-identity of an individual but not the *ipse*-identity. In contrast, a profile that is internalized chronically influences both the *idem*-identity and ipse-identity of an individual, for this internalization is a long-term, dispositional endorsement that occurs across varying situations.

5 Identity Construction in the Age of Machine Profiling: Provisional Conclusions and Recommendations

Mireille Hildebrandt and Katja de Vries

Profiling is a matter of attributing a set of characteristics (preferences) to a person, inferred from his data (individual profiling or social labeling) or from those of others (group profiles or stereotypes). Machine generated profiles are *idem*-identities (representations of a person fabricated by data mining technologies). These *idem*-identities impact the construction of the 'me', by offering opportunities or attributing risks, thus influencing how the 'me' develops in the course of life. In itself this is not a new fact. We have always been profiled by others: by family, friends, colleagues and by organisations and governments. As explained in *Profiling the European Citizen* (Hildebrandt and Gutwirth, 2008), the profiling of one's environment is a crucial aspect of all organic creatures, discriminating them from inorganic things.

Yet, as we have indicated in this report, there are also several crucial differences between human and machine profiling. These differences can be clarified by taking a closer look at the possible effects of machine profiling on the following interdependent but different aspects of identity: (1) *idem*-identity, (2) *ipse*-identity, (3) the 'me', i.e., where *idem* and *ipse* meet (narrative identity).

5.1 Effects of machine profiling on idem, ipse and 'me'

5.1.1 Effects on *idem*-identity

In the same way as 'classical' human profiling can lead to unwarranted discrimination (e.g., 'That scarfed Muslim girl is probably stupid, and should therefore not be allowed to study at this university') machine profiling can lead to social sorting and discrimination (Lyon, 2002), because it is 'designed to facilitate the identification and classification of individuals into distinct groups or segments' (Gandy, 2002, p. 11).[22]

Nevertheless, the fact that machine profiling is technologically and bureaucratically 'institutionalised' ('the machine does not make mistakes') can make it much harder to resist than 'classical' human discrimination (*cf.* Zarsky, 2002-2003; Steinbock, 2005). Moreover, the increased use of machine profiling could possibly lead to a serious increase of 'classical' discrimination cases: not only because the increased use of profiling would bring along more cases of wrong categorizations (Van Bendegem, 2008), but also because certain profitable categorizations could be at odds with what is perceived in a constitutional democracy as legitimate discrimination.

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[22] See also J. Kallinikos (2008) on the impact of data aggregation and profiling on what Ian Hacking has termed 'interactive classification': 'If institutions classify people in particular ways that are tied to rights and obligations, it is very likely that people will take onboard the classifications and act accordingly'. His point is that 'profiles may be taken on (wittingly or unwittingly, knowingly or unknowingly) by social agents who may therefore come to act in ways that would have never been possible without the generation of information out of data'. This confirms that we have a *new* situation here, of which the potential implications need further attention.

On the other hand machine profiling could in some cases also be a helpful tool in debunking some persisting forms of unwarranted categorization that haunt human profiling (e.g., 'There was no significant difference found in the databases between the grades of Muslims and non-Muslims').

However, contrary to human stereotyping and labeling, machine profiling (in the case of warranted as well as unwarranted discrimination) could take place without the data subject's conscious awareness of being subjected to profiling. This enables a reconstruction of the me, without providing the opportunity to reflect upon the categorisations that affect this reconstruction, which seems equivalent to manipulation. Unconscious awareness has been deliberately used in advertising in the form of so-called subliminal messages, shown in the context of a film or documentary. The messages, in the form of an image, were displayed in such a short time span that they cannot reach the conscious mind. In many jurisdictions they have been forbidden, precisely because of suggestions that they affected the mind of those who watched the film (Dijksterhuis et al., 2005).[23]

5.1.2 Effects on *ipse*-identity

Words like 'stereotyping' and 'social labeling' have a negative connotation and are often associated merely with unwarranted forms of discrimination, whereas the exposure to profiling will often be experienced as legitimate (see Chapter 4). Yet, leaving aside for a moment the question whether or not the discrimination is unwarranted, it became clear in Chapter 3 that without *any* form of profiling that constitutes an *idem*-identity, the experience of human subjectivity and freedom (*ipse*-identity) would not be as we know it today. The bundling of identifications into our identity ('You are a typical member of the Habsburg family') does not only constitute a conjunctive 'and' ('I and the other Habsburgers are the same') but at the same time also a disjunctive 'and' ('"The Habsburgers" is a timeless, abstract notion that does not coincide fully with me being a Habsburger here-and-now'). Thus, *ipse*-identity implies the existential or finite appropriation of *idem*-identities, i.e. confronted with the here-and-now, considered as 'my own' *idem*-identities. This also implies that without *idem*-identity there can be no *ipse*-identity: if I am not consciously aware of being identified as a female, the question what it is to be a woman *here and now* will never arise; nor will the possibility to re-think this categorization in a novel way.[24]

Consequently, we can assume that if machine profiling affects *idem*-identity this will bring along some changes to the other side of the coin (*ipse*-identity), i.e. cause some more existential changes – changes in how one experiences oneself in the here-and-now - in the

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[23] 'A subliminal message is a signal or message embedded in another medium, designed to pass below the normal limits of the human mind's perception. These messages are unrecognizable by the conscious mind, but in certain situations can affect the subconscious mind and importantly, the unconscious mind, and can negatively influence subsequent later thoughts, behaviors, actions, attitudes, belief systems and value systems. The term subliminal means "beneath a limen" (sensory threshold). This is derived from the Latin words sub, meaning under, and limen, meaning threshold' (http://en.wikipedia.org/wiki/Subliminal_message).

[24] A cat may be aware of being profiled in a certain way, allowing it to respond in an adequate manner. But this awareness is not conscious of itself, meaning that the cat does not entertain any conceptualisation of what it is to be a (certain type of) cat.

meaning of 'freedom', etc.

5.1.3 Effects on the 'me', where *idem* and *ipse* meet

A change in *idem*-identity also affects the *ipse*-identity, and therefore also affects the place where *idem* and *ipse* meet: the 'me'. If we are not aware of being profiled and cannot anticipate how our data will match group profiles constructed out of other people's data, this could mean that the *double anticipation* ('profiling how we are being profiled'; see the discussion in Chapter 2) which takes place in the 'me', would become next to impossible.

A partly overlapping issue is the fast pace and inarticulateness ('How to identify with an algorithm?', *cf.* Gandy, 2002, p. 15) of some types of machine profiling. Here once again the domino-effect does its work on all the aspects of identity: if no conscious *idem*-identification takes place because the human mind is not equipped to identify with a formula or because the profile is so protean that real-time flexibility in identification is needed,[25] existential *ipse* experience seems to be blocked (experience *of* one's self as one's own self). This would make any counter-profiling* within the 'me' difficult if not impossible.

5.2 Need for further discussion of the relationship between idem, ipse and me

Whereas the previous section presented the relationship between *idem*, *ipse* and *me* as rather unequivocal, a closer look at the approaches of the subsequent chapters in this deliverable raises some interesting issues for further research.

One of the questions that, for instance, will need further exploration is whether the construction of *idem*-identities is something that necessarily requires a *conscious* appreciation of the profile to which one is exposed (suggested in Chapter 4) or whether the construction of *idem*-identities often occurs implicitly (cf. Chapter 2). Is it fruitful to use a more reflective and psychological terminology (a tendency to be found in certain parts of Ricoeur)? Or is it better to stick to a more pragmatic and sober understanding of the subject, in terms of 'actions upon actions' (cf. the Foucauldian perspective taken in Chapter 4)? Another point of interest is how to cope with common sense expressions like 'internalisation' and 'appreciation of a profile as legitimate', such as introduced in Chapter 4? In as far as 'internalisation' implies a separation of self, mind and society this could refute the relational self advocated in Chapters 2 and 3. If, on the other hand, internalisation is understood as the process of self constitution explained by e.g. Mead's 'generalised other', this can easily take place without any conscious awareness and thus without being perceived as either legitimate or illegitimate. With respect to *legitimacy* a similar ambiguousness can be perceived: is the legitimacy of a profile to be understood as an empirical fact that can be measured, or rather as an issue of reflection and deliberation?

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[25] As neuroscience tells us, our conscious brain is much slower than our unconscious brain, which is – luckily – capable of immediate autonomic responses to situations profiled as dangerous. If we burn our finger the reflex of retreating the finger is autonomic, if we find ourselves in an emergency on the road (a car driving straight into our face) our autonomic reflexes will take over, as reflection would take time that is simply not available. This is not a problem, on the contrary, but if machine-generated profiles are used to deliberately manipulate our sense of self – bypassing our conscious reflection – we may lose the 'freedom' afforded by our 'slow mind'.

Another issue of debate is the question whether there will always be a domino-effect on all the aspects of identity – or whether one can imagine cases of changing behaviour while one's identity stays unaffected (suggested in Chapter 3)? Can there indeed be a change of one's *idem*-identities which does not affect *ipse*-identity? And what about the priority of *idem*, *ipse* or *me*? It could be tempting to understand *idem* as the starting point and *me* as the end station, but in practice they are probably mutually constitutive. This means that they arise together, simultaneously, emerging in concert rather than being caused by each other. Thus, for instance, resistance against a profile that one considers to be negative, may in fact reinforce and sustain one's original *idem*-identifications (though they may differ from how one is being profiled). Identity can be stable in the face of challenges but this indeed requires hard work.

Finally, the crucial point of debate will be the practical question of how to create technologies that minimize unwarranted discrimination, allow for counter-profiling and help to open a space of freedom (i.e., a practice which invites the self to experiment with novel possibilities of being oneself).

5.3 Autonomic behaviour and autonomous action

Machine-generated profiling may generate new identifications of the self, thus affecting a change of the self. In itself this is not a problem, nor a new phenomenon. It seems difficult, however, to enable conscious awareness of these changes. This difficulty can easily obstruct conscious reflection about the 'make up' – or rather – the 'make over' of the self. Also, this obstruction makes identity vulnerable to manipulation.

In Chapter 2 of *Profiling the European Citizen* (Hildebrandt and Gutwirth, 2008) an important distinction has been made between autonomic behaviours and autonomous action. Referring to our central nervous system, IBM has coined the term 'autonomic computing' to describe a computer system that can reprogram, repair and manage itself without human intervention. Like our autonomic nervous system the computer system is aware of its environment due to its profiling capacities, but – again like the autonomic nervous system – this awareness is not translated to the consciousness of the human mind. We have no conscious access to the regulation of our heartbeat or breathing rhythm, and neither do we profile how others profile us by tracking their brain processes. As psychologists have demonstrated, a large part of our behaviour is produced by unconscious processes to which we have no access, and the extent to which we are capable of conscious reflection is limited (Hassin et al., 2005).

However, the fact that – other than most other organisms – we are capable of bringing perceptions, intentions, predictions and memories to our conscious mind, is the *sine qua non* of autonomous action. This capacity should not be taken for granted, as it depends on many other factors, of which the use of language and other technologies is probably pertinent. Autonomous action refers to action that follows a law (nomos) that we have set for ourselves (auto). It should not be understood in terms of a sovereign self that issues laws for itself, as this would fall into the trap of Cartesian voluntarism. It rather refers to the subtle interplay between Mead's indeterminate 'I' and the underdetermined 'me', enabled by the fact that we (first person perspective) can look at our selves from the perspective of the 'generalised other' (third person perspective). This interplay allows us a particular kind of freedom, aptly described in Chapter 3: a freedom that is not understood in terms of an absence of constraints, but in terms of the fact that constraints allow for resistance (Foucault) and reflection (Ricoeur), thus making possible the construction of one's personal identity.

Autonomic processes do not generate freedom in that sense, because the interplay between a first and third person perspective is not a part of it. It is only when the results of autonomic processes pass the threshold of consciousness, that we can begin to deliberately resist or embrace these results. Autonomous action thus depends on a measure of transparency to the conscious human mind that is often absent from the type of machine profiling we are discussing within FIDIS work package 7. At the same time we must acknowledge that autonomous action depends on language and other technologies that enable the interplay between first and third person perspectives.

5.4 Tools to analyse practices and technologies in terms of freedom

As discussed in Chapter 3, the difference between power and violence is that power allows for resistance, whereas violence simply twists a person's hand. Power allows for autonomous action of the person at the other end of the power relationship, whereas violence treats the other as a thing that can be manipulated into compliance. The construction of the self thus depends on constraints that allow for resistance, instead of forcing our hand. This falls into step with Agre and Rotenberg's definition of the right to privacy: the freedom from unreasonable constraints on the construction of our identity. An unreasonable constraint is a constraint that limits our response in a way that leaves no room for effective resistance. In other words: to embrace specific *idem*-identities as part of our *ipse*-identity (identification with) we must be capable of resisting them (rejecting identification). Power relations thus – other than violence – create practices of freedom.

The crucial question is, how to assess whether a technology is likely to be helpful in creating practices of freedom? Foucault has made a list of points to be established when analysing power (Foucault, 1982, p. 223-224). This list should be helpful in assessing the impact of machine profiling on human identity:

(1) The system of differentiations: Which differentiations brought are about by the process of data mining?

(2) The types of objectives: What does the data mining do? Who benefits?

(3) The means of bringing power relations into being: As Foucault has put it, we must differentiate: 'according to whether power is exercised by the threat of arms, by the effects of the word, by means of economic disparities, by more or less complex means of control, by systems of surveillance, with or without archives, according to rules which are or are not explicit, fixed or modifiable, with or without the technological means to put all these things into action' (Foucault, 1982, p. 223).

(4) Forms of institutionalisation: In what kind of system is data mining embedded?

(5)The degrees of rationalisation: How well adjusted is profiling to the situation in which it operates? Is it in proportion to the possible cost?

In addition to these five Foucauldian starting points the following issues need to be addressed:

(a) How is the profile articulated? Does it allow for identification? And for resistance?

(b) What is the time-scale of the profile? Does it allow for identification?

Given the potential effects of machine profiling on identity construction, and the consequent importance of creating possibilities for resisting a profile, these issues are vital for further study. In discussing these issues, the concepts of *idem*, *ipse* and *me* – when further elaborated as indicated in section 5.2 – can prove to be of great value since they provide a conceptual framework with which to analyse the impact of machine profiling on identity construction.

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Glossary

'AND', Conjunctive/Disjunctive

A notion borrowed from thinkers like Simondon, Stiegler and Deleuze. The notion *Conjunctive/Disjunctive 'AND'* helps to clarify the *relational* character of identity, and more in particular the relation between '*Idem*-Identity' (the conjunctive 'AND', i.e., identity as sameness) and '*Ipse*-Identity' (the disjunctive 'AND', i.e. identity viewed from the point of the finite individual existence). Thus, the 'AND' relates one's finite, situated perspective to an 'immortal' domain of cultural patterns, language structures, tools, practices, etc. Talking about the *Conjunctive/Disjunctive 'AND'* might be helpful to avoid a substantialist understanding of the notions '*Idem*-Identity' and '*Ipse*-Identity'.

See also: '*Idem*-Identity', '*Ipse*-Identity' and 'Me'.

Conjunctive 'AND'

Identity as sameness,i.e. '*Idem*-Identity'. *Idem*-identity can both refer to sameness as compared to others or sameness of the self in time (continuity).

See also: ''AND', Conjunctive/Disjunctive'.

Counter-profiling

Profiling our environment (persons, things, situations, events, machines, software, etc.) which we suspect to be profiling us.

Data mining

A procedure by which large data bases are mined by means of algorithms for patterns of correlations between data. These correlations indicate a relation between data, without establishing causes or reasons. Data mining is an inductive way to generate knowledge; the correlations stand for a probability that things will turn out the same in the future. In this way predictions, based on past behaviour, are made.

Disjunctive 'AND'

Identity as sameness (i.e., '*Idem*-Identity' or the conjunctive 'AND') experienced from a finite, existential perspective (i.e. '*Ipse*-Identity' or disjunctive 'AND'). The disjunctive and the conjunctive 'AND' should not be understood as two different substances, but as the same relation expressed in two different ways: one could say "I am **a woman like other women** and I am **the same as** I was **yesterday**" (the stress is on the *similarity* – and as such it is *idem*-identity or conjunctive "AND") or one could say "**I am** a woman like other women and **I am** the same as **I was** yesterday" (the stress is on the *disjunctive existential experience* – and as such it is *ipse*-identity or disjunctive "AND")

See also: ''AND', Conjunctive/Disjunctive'.

Double anticipation

The way we profile others as profiling us in everyday life is called double anticipation. This is co-constitutive of our sense of self, and occurs without conscious awareness most of the time. In an AmI environment we may want to profile how the *non-human* environment is profiling us, for

which we will need counter-profiling technologies.

See also: Counter-profiling

Foucault, Michel (1926-1984)

French thinker whose thought is introduced in this deliverable in order to show:

(a) That the structure-agency debate is misguided. There is no freedom without constraints – and freedom must exist for power to be exerted.

(b) That there are practices – so-called 'technologies of the self' – that regulate the relations of ourselves towards ourselves.

Human Profiling

See: 'Profiling, Human'

Generalised Other

A concept coined by George Herbert Mead referring to the integrated variety of third person perspectives that is internalised – constituting our identity - and thus connects the self (our identity) intrinsically to the social.

See also: 'Me', 'Narrative Identity' and 'Reference Group'

Goffman, Erving (1922-1982)

Canadian sociologist who introduced the notion of *social roles*. According to Goffman the individual defines the situation and acts upon this according to the behaviour that is expected of him by others, that is, one plays the *social role* he is expected to play. Because there are many different situations and since individuals are often members of different social groups, individuals have multiple social identities, and each social identity calls out the corresponding role that needs to be played.

Group profiling

Group profiling is the process of constructing profiles at the level of groups rather than of individuals. When a group profile is applied to an individual this is called indirect individual profiling, because the profile was not inferred from the individual it is applied to. Group profiling can concern both communities (existing groups) and categories (e.g. all people with blue eyes). Indirect individual profiling, based on group profiles compares to what has been described as stereotyping in this deliverable.

See also: 'Profiling', 'Stereotyping'

I

The 'I' generates the response of a person to attitudes of others (Mead). It is the first-person perspective on what constitutes oneself as a continuous being in the course of time, while experiencing multiplicity and difference in the here and now.

See also: 'Ipse', 'Me'

Idem-Identity

A third-person (i.e., objectified) attribution of sameness. Such an objectified perspective can not only be taken towards others but also towards oneself.

Identifier

A token for identification, i.e., something we possess (e.g. a smartcard), something we know (e.g. a password) or something we are (e.g. a genetic profile). An identifier is always an *idem*-identity.

Identity

(1) *The 'classical' or 'common sense' way of describing identity*: a set of attributes that uniquely describes a particular person; it is what a unique identifier (often also called identity) refers to. The identity of a person, in this sense, depends on the context, is not static in the course of time and can only be determined from a third person perspective (the attributes are attributed, even if this third person perspective is taken by the person it concerns).

(2) *The relational notion of identity as used in this deliverable*: the self-characterisation that takes shape in one's relations with the rest of the world, constituting a sense of self which is both constraining as well as enabling. Identity, in this sense, depends on a process of double anticipation: we profile how we are being profiled by others.

Individual Profiling

The process of *constructing* machine-generated profiles, inferred from an individual person or the *application* of machine-generated profiles to an individual person. If the profile that is applied has been inferred from data of the same person this is called direct individual profiling; if the profile applied has been inferred from data of other people (a group profile) this is called indirect individual profiling. Direct individual machine profiling compares to the way 'social labeling' is described in this deliverable.

See also: 'Profiling', 'Social Labeling'

***Ipse*-Identity**

(1) The *ipse*-identity perspective is the first-person perspective on what constitutes oneself as a continuous being (*idem*) in the course of time, while experiencing multiplicity and difference in the here and now.

(2) The *ipse*-identity level is where *idem*-identities ('the generalised other', relevant 'reference frames') and *ipse*-identity (the 'I' and the 'me') meet and intertwine. Idem-identities and ipse-identity cannot be reduced to each other and actually depend on each other. The circularity is crucial here. Ipse integrates *idem*-identities, but also depends on being *idem* in time. Because the 'me' is part of the 'ipse' and the 'I' has continuity, there is a virtuous circle.

See also: 'Self'

Machine Profiling

See: 'Profiling, Machine'

Me

The 'me' (G. H. Mead) is the organised set of attitudes of others which one assumes. It is co-constituted by the 'I', the first person perspective, which incorporates the variety of third person perspectives it encounters and develops. Thus, the 'me' is continuously reconstituted in the face of changing third person perspectives on the self.

See also: 'Generalised Other' and 'Narrative Identity'

Mead, George Herbert (1863-1931)

American pragmatist philosopher and sociologist. According to Mead, identity (or the self) consists of two phases: "…the "I" and the "me". The "I" is the response of the organism to attitudes of others, the "me" is the organised set of attitudes of others which one himself assumes" (Mead, 1934, p. 175). Mead's pragmatist understanding of the 'self' and his notion of the 'generalised other' form the basis of the discipline of social psychology.

Narrative Identity

The 'me' as constructed by the 'I' in relation to others in time and space.

See also: 'Me'

The New Unconscious

The title of an edited volume on social cognition and social neuroscience, edited by Hassin, Uleman and Bargh. The book presents the findings of a host of cognitive scientists who work in the field of nonconscious human thought and action, combining new visibility of brain processes with experiments that demonstrate the power of the unconscious human mind. Other terms used are 'adaptive unconscious', 'unconscious thought' and 'intuition'. The idea is that our embodied mind has many capacities that depend on the workings of processes that do not reach the threshold of consciousness, since this is slow and limited. Some authors, notably Wegner (2007) claim that intentional action is an illusion, created after the (f)act.

Profiling

A form of generalisation or categorisation of objects. It is a process that every living organism uses in order to make sense of the complexity of its environment. Reflection on each tiny particularity would interfere with the necessity to make continuous choices of action.

Profiling, Human

A form of generalisation or categorisation made by humans.

Profiling, Machine

A form of generalisation or categorisation made by machines. The process of 'discovering' correlations between data in data bases that can be used to identify and represent a human or nonhuman subject (individual or group), and/or the application of profiles (sets of correlated data) to individuate and represent a subject or to identify a subject as a member of a group or category.

Machine profiling differs from human profiling in two salient ways: (1) other than human profiling machine profiling is not part of an autopoietic system that constitutes itself, (2) other than human profiling machine profiling does not integrate conscious reflection or intentional action.

Reference group

Shibutani (1955) replaces Mead's notion of the 'generalised other' with the notion of 'reference groups', thus emphasizing that the 'generalised other' (i.e., the 'me') does not necessarily have to be a coherent 'role'. The extent to which the 'me' is coherent or incoherent will depend on the circumstances in which a person has found and finds herself and on the way her 'I' responds to the many images/profiles that she detects others to have of her.

See also: 'Generalised other'

Ricoeur, Paul (1913-2005)

French philosopher who introduced the notions of *idem* and *ipse* as different meanings of 'identity', explaining the relationship between sameness, continuity in the course of time and the first person perspective. He developed the notion of a narrative identity to explain how the 'I' is involved in the reiterant process of self-constitution, requiring a reiterant re-constructing the story of one's life.

Self

The self (according to G.H Mead) is what is constituted by the 'I' (*cf.* '*ipse*') and the 'me' (*cf.* 'the generalised other' or 'narrative identity'), implying in a reiterant process of self-construction**.**

See also: '*Ipse*-Identity'.

Sense of Self

The first person experience of the self.

See also: '*Ipse*-identity', 'Self'.

Social Labeling

A concept used in the discipline of psychology. In this deliverable it is described as making and using assumptions about the characteristics of an individual in relation to her social functioning, based on her past behaviour. This compares to machine-generated direct individual profiling.

See also: 'Individual Profiling'

Stereotyping

A concept used in the discipline of psychology. In this deliverable it is described as making and using categorical assumptions that all members of a given group have a particular trait. This compares to machine-generated group profiling.

See also: 'Group profiling'

Stiegler, Bernard

Contemporary French philosopher. The relationship between technology and the human openness towards time (a particular kind of memory and anticipation) is one of the major themes in his work (e.g., *Technics and Time, 1: The Fault of Epimetheus*, 1998). Building on the philosophy of Gilbert Simondon he developed the notion of the conjunctive/disjunctive 'AND'.

Tajfel, Henri (1919-1982)

British social psychologist, who developed the theory of social identity, together with his student, John Turner. 'They proposed that people have an inbuilt tendency to categorize themselves into one or more ingroups, building a part of their identity on the basis of membership of that group and enforcing boundaries with other groups. Social identity theory suggests that people identify with groups in such a way as to maximize positive distinctiveness; groups offer both identity (they tell us who we are) and self-esteem (they make us feel good about ourselves). The theory of social identity has had a very substantial impact on many areas of social psychology, including group dynamics, intergroup relations, prejudice and stereotyping, and organizational psychology' (see http://en.wikipedia.org/wiki/Henri_Tajfel, downloaded at 4th September 2008).