4-10-2008

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Pieter Wisse
*Information Dynamics*, pieter@wisse.cc

芽|Sprouts Working Papers on Information Systems ISSN 1535-6078

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Information Dynamics, The Netherlands

**Abstract**
This paper develops a semiotics of identity management in three parts. Part 1 (Identifying assumptions) is an introduction. It aims for an appreciation of how pervasive issues of identity really are. Philosophy, science and, not to forget, religion may indeed be viewed as attempts for coming to terms with identity. Part 2 (Identity in enneadic dynamics) presents the encompassing framework. An enneadic model of semiosis is sketched, which is then applied to design a pragmatic, or behavioral, orientation at identity management. Communication and identity management are largely synonymous; identity management is essentially dialogical. Illustrations from natural history serve to emphasize the generally valid behavioral orientation. Part 3 (Social practices in identity management) illustrates how the semiotic framework helps to gain overview. It discusses selected developments in identity management at the cultural level, i.e. as practiced by human communities and societies. The partly electronic future of identity management is proposed as a program for open security in an open society.

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**Permanent URL:** http://sprouts.aisnet.org/6-19



**Reference:** Wisse, P.E. (2006). "Semiotics of identity management," University of Amsterdam, Netherlands . *Sprouts: Working Papers on Information Systems*, 6(19). http://sprouts.aisnet.org/6-19

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**About the author:** Pieter E. Wisse (www.wisse.cc) is the founder and president of Information Dynamics, an independent company operating from the Netherlands and involved in research & development of complex information systems. He holds an engineering degree (mathematics and information management) from Delft University of Technology and a PhD (information management) from the University of Amsterdam. At the latter university, Pieter is affiliated with the PrimaVera research program in information management.

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"Be yourself" is the worst advice you can give to some people.[56: 265]

## 1. Identifying assumptions

### 1.1 Limits to access

Organizations in both the private and the public sector apply what is currently known as identity management. Their purpose is to control interests. From such a concern with security, however, any particular organization certainly does *not* put its own identity to the test when 'managing identities.' More generally speaking of actors, including individual persons, that is, only other actors are considered problematic. Are they potentially harmful? Could they threaten interests?

Knowing who the other actor is, i.e. being able to verify his identity upon contact, supports a policy of selective access.[61: 14] Where identity management is thus pursued within a security matrix of controlled process and property, essentially it is even *identical* to access control.

Access, however, is also not at all a clear-cut concept any longer (if ever it has been). An especially relevant trend is for access control systems to increasingly involve application of *digital* information and communication technology (IT). In fact, IT does not just replace traditional instruments for granting or denying physical access. It also establishes an additional access category, i.e. virtual access. For IT now makes information resources instantly available across distance in place and/or time.

When IT is deployed for controlling physical access, but leaves it at that, it would actually be more apt to infer that new identity management is supporting otherwise old security in general. A different lock has been installed, that is all; it works with a correspondingly digitalized key.

Security's object only becomes more specific in an informational sense with virtual access. There, identity management in one of its popular meanings really meets *information* security, because virtual access is by definition to information resources. Regarding information security, identity management requires for example as seamless a modulation as possible into authorization for using resources.

> [F]irst, a reliable structure is needed under which authorizations to use resources are conferred (or revoked), and second, a reliable mechanism must exist to verify the authorization each time an access is attempted.[67: 404]

### 1.2 An encompassing framework

Where identity management lacks requisite variety, risk rather than security results. Information security should benefit from identity management properly designed and executed. But how does semiotics contribute? It is the theory of the sign. With a heritage dating back at least to fourth century



 

thinkers and reinforced from the seventeenth century on,[23] semiotics abstracts from IT. It provides a perspective for recognizing there is more, much more, to take into account for identity management than virtual access control to digitally coded information resources.

Semiotics of identity management is developed here in three parts. Part 1 (Identifying assumptions) is an introduction. It aims for an appreciation of how pervasive issues of identity really are. Philosophy, science and, not to forget, religion may indeed be viewed as attempts for coming to terms with identity. Together, the paragraphs in part 1 especially argue for the relative nature of assumptions. Whatever assumptions have been useful at one time may subsequently require adjusting, and so on. Assumptions for identity and, subsequently, for identity management are no exception.

Part 2 (Identity in enneadic dynamics) presents the encompassing framework. An enneadic model of semiosis is sketched, which is then applied to design a pragmatic, or behavioral, orientation at identity management. Communication and identity management are largely synonymous; identity *management* is essentially dialogical. Illustrations from natural history serve to emphasize the generally valid behavioral orientation.

Part 3 (Social practices in identity management) illustrates how the semiotic framework helps to gain overview. It discusses selected developments in identity management at the cultural level, i.e. as practiced by human communities and societies. The partly electronic future of identity management is proposed as a program for open security in an open society.

There are no direct conclusions or recommendations at the end. It is, rather, as a framework for further work that semiotics of identity management is outlined.

### 1.3 Security in sign accuracy

A general meaning dictionaries supply for *identity* is "the condition, quality or state of being some specific person or thing, i.e. individuality, personality."[97: 578; 86: 674] Identity is not mentioned as a condition for entry, or access. Then again, such application might be inferred from *identity* referring to "identification, or the result of it."[86: 674] If so, what qualifies as the result of identifying-as-a-process on the basis of an identification-as-a-sign? After all, it is unequivocally knowing "some specific person or thing," that is, in its essential uniqueness. When *identifying*, security therefore primarily hinges on accuracy. What counts especially is the precision of the sign, or information. Identity management is thus a precondition of information security and, as will also be shown, security in general. Pragmatic philosopher Dewey (1859-1952) places his behavioral point of experimental logic as follows:

> The judgment of what is to be done implies […] a statement of what the given facts of a situation are, taken as indications to pursue and of the means to be employed in its pursuit. Such a statement demands accuracy. [… A]ccuracy depends fundamentally upon relevancy to the determination of what is to be done.[24: 345]

Who is the one individual, or actor, who seeks to know-as-a-unique-designation the other individual, be it another person and/or object? Why, and when, is identification judged relevant? And, indeed, when not? What underlies variety in rigor for identification? This inquiry (re)establishes how a behavioral theory of identity management relates individuality with identification and (inter)action. Social complexity demands a comprehensive, productive theory should guide the practice of identity management.

> [T]o resolve [complexity] into a number of independent variables each as irreducible as it is possible to make it, is the only way of getting secure pointers as to what is indicated by the occurrence of the situation in question.[24: 37]

Accuracy requires a formally rich approach to information modeling. Here, I present such a generalized, interdisciplinary theory. A *semiotics* of identity management suggests integrative directions in both historical investigations and future-oriented theory and practice of information security.

### 1.4 Taking time off

Dealing responsibly with identity, there simply is no escape from taking a stand on assumptions. Some people may not care to call (their) collected assumptions a philosophical doctrine, but that is invariably just what they constitute. As it is,

> [t]he necessity of taking into account the best available non-philosophical work on space and time when formulating one's philosophical doctrines is […] evident far back into the history of the subject.[82: 850]

Among the most advanced theories in scientific physics today are of course those on relativity. Actually, that is where this inquiry threatens to come to a halt before it has even begun. Radically applying the relativistic concept of space-time yields identity problematic beyond control. Quantum mechanics certainly offers no solution. Heisenberg (1901-1976), known for his uncertainty principle, mentions an "interference of probabilities."[40: 149] An ultimate ground for distinction and therefore identities is lacking. A constraint is definitely in order.[71; 90] Here, space and time are considered as related, but separate.

Epistemologically separating time from spatial dimension(s), however, does not preclude time from being seen as constituting other irreducible configurations, i.e. systems. Founding his intuitionism, Brouwer (1881-1966) argues from distinguishing between man and nature.

> Man has the capacity for mathematical experience of his life, i.e. recognizing repeating sequences in the world, and causal systems through time. The connected primal phenomenon is the time intuition as such. It allows for repetition of *a thing in time and a thing yet again*, thus leading life's moments to become split into sequences of qualitatively different things.[13: 81]

In other words, time intuition in Brouwer's sense is conditional for the essential mathematical practice of, say, particularizing. Time intuition is man's cognitive imperative for recognizing systemic individuals.

> The primal intuition of mathematics (and of all intellectual action) is the substrate when all observations of change have been abstracted from quality, i.e. that intuition operating from a unity of the continuous and the discrete, from the potential of joining several units in a single thought with such units connected by an *in-between* which is never exhausted because ever new units are joined up. As irreducible complements, the continuous and the discrete constitute that primal intuition; they have equal rights and are equally manifest. It is therefore ruled out to abstain from either one as an original entity. One cannot be constructed from the other, taking the other first as a self-contained entity; making such an independent assumption is already impossible.[13: 49]

Assumptions, or axioms, postulates etc. are instrumental designs for optimizing mathematical cognition in Brouwer's wide intuitionist scheme. Let me add that I don't believe time intuition is a *human* faculty, only (see §§ 2.6 and 2.7, below, on natural history). However, the point remains that axioms are artifacts, as was increasingly acknowledged by members of the (Neo)Kantian movement.[88; 68] They arise in inquiry and serve to compress speculation.

> We may take a postulate to be a statement which is accepted without evidence, because it belongs to a set of such statements from which it is possible to derive other statements which it happens to be convenient to believe. The chief characteristic which has always marked such statements has been an almost total lack of any spontaneous appearance of truth.[83: xix-xx]

The number zero is a prime example; as an efficient borderline concept, it allows controlled crossing from the irrational tot the rational, vice versa. So, as another example, does Schopenhauer's (1788-1860) concept of the will.[81]

Realizing with Kant (1724-1804) that boundaries preclude absolute rationality as proposed by the Enlightenment, at the beginning of the twentieth century mysticism was the accepted label for practicing a strong concern.[96] Most scientists would now again call it metaphysics. Even Russell (1872-1970) admits to some limits.

> Human beings cannot, of course, wholly transcend human nature; something subjective, if only the interest that determines the direction of our attention, must remain in all our thought.[77: 30]

However, Russell still tries to keep his logic as absolute as possible, i.e. opposes what he must have considered contamination from behavior. It leads him to disagree, for example, with Dewey on the latter's experimental logic. Russell argues it is "only the interest" that might interfere somewhat with absolute knowledge. With Schopenhauer it is precisely the irreducibility of interest-driven action (also read: will) why absolute knowledge is unattainable in principle.

What simply has to be assumed, i.e. it cannot be proven, (also) grounds mathematics or, as Schopenhauer calls it earlier, interpretation (German: Vorstellung). Man's particular state therefore also determines his mathematics through his particular choice of mysticism, say his first

principle(s).[11; 52; 47] Indeed, almost a century has passed since Brouwer axiomatized time intuition. "The mystery of time" [48] remains ontologically as unresolved as ever. It is still that time is induced from an experience of order and, working the other way around, measurements implying time involve man in *man-aging* order, or at least in making an effort to do so.

Measuring time suggests time intuition applied to itself, i.e. reflexivity. Recalling the constraint of a separate time dimension, for (most) practical purposes time is believed to develop linearly. Along a continuous time line, individual time points or, rather, temporal intervals, may be marked. The precision varies with the instruments used for measuring. As Brouwer remarks,

> Similarity of instruments leads to the expectation of similar laws for different areas in physics. For our counting and measuring instinct is similarly affected by [different phenomena], when we submit them all to certain specific instruments; we can subsequently apply a single mathematical system, but it is only a lack of appropriate instruments which has prevented us so far from discovering other mathematical systems relevant for one particular phenomenon and not for another.[12: 15-16]
>
> For example, the laws of astronomy are nothing but the laws of the instruments we use for measuring the course of celestial bodies.[14: 30]

Year is widely used as interval duration. And years are counted in order to sequence major events. What inhabitants of the so-called Western world take for the year zero, actually relies on a particular mysticism. It is the Christian religion. While it is far from 'mathematically' certain that there is a historical Jesus, leave alone that his life and, most notably, his death are faithfully rendered by the gospels,[22] the alleged year of his alleged birth was afterwards set as the beginning of an era. More recently, in scientific publications the nowadays politically more correct references BCE (before the common era) and CE (common era) replace BC (before Christ) and AD (anno domini). The calendar itself for establishing temporal order and supporting measurements has undergone several reforms to (re)gain precision and periodicity.[48]

### 1.5 Tangled identities

Along a temporal dimension, i.e. 'in' time, identity might be determined as what exists between birth and death. Then, is *nothing* what lies before and comes after such existence? As an assumption, it indeed seems too simple; the procedure actually allocates identity to the before-birth and the after-death, too.

So, what is real? An absolute, or perfect, identity in the idealist sense has often been proposed — Plato's form, the Judeo-Christian god and Hegel's spirit are some of the ideas on a metaphysical absolute — to avoid an infinite regress in argument and explanation. Instead, the concept of empirical, behaviorally responsible identity becomes increasingly muddled:



 

> [T]he speech (*logos*) of many philosophers (in reality, ideologues) is not human speech, but either silence, indicative of a world devoid of meaning, or ideology, the false speech of a superindividual: History.[59: xiii]

From Western calendar's point of reference, i.e. the birth year of Jesus, an illuminating example of tangled identities may be derived. In general, of course, a long tradition exists of biblical criticism aimed at lacking consistency (a.o. Erasmus, Spinoza). The story of Jesus' birth as it has been handed down [74] certainly displays an intriguing range of perspectives on both identity and its management. It therefore exemplifies much of what is invariably problematic in identification as a hermeneutics, i.e. establishing a particular identity with adequate certainty.

Even when only *The Bible* is consulted, it is already the story of the birth of Jesus which doesn't have an unproblematic identity. For the New Testament offers not one, but two birth narratives,[4] one attributed to Matthew and another to Luke. Immediately, more preliminary questions on identity arise. Did Matthew really exist, i.e. is he a historical person? And what is known about Luke to ascertain his existence?

Questions abound, too, for example on language. Rendered in modern English, what counts now as the text(s) for the reader? Is (s)he, among other aspects, aware of historical change in the concept of authorship? What are the limits of such awareness?

Luke's gospel opens with a claim at credibility: "I myself have investigated everything from the beginning." From his "orderly account," Luke proselytizes, the reader "may know the certainty of the things [(s)he, i.e. the reader] ha[s] been taught." This emphasis on truthfulness raises yet another question of identity. The birth accounts by Matthew and Luke, respectively, demonstrate striking differences — which could merely reflect different perspectives on the same events — as well as several conflicting points. Does Luke more or less proclaim Matthew a liar?

So far, only circumstantial issues of identity have been referred to. What events surrounding the birth of Jesus do the evangelists write about? With Luke, it is to Mary that the angel Gabriel speaks on behalf of God. Mary inquires how she may give birth to a son while being a virgin. Gabriel announces, "[t]he Holy Spirit will come upon you, and the power of the Most High will overshadow you. So the holy one to be born will be called the Son of God."

As if Mary needs convincing, Gabriel mentions that "[e]ven Elizabeth your relative is going to have a child in her old age, and she who was said to be barren is in her sixth month." When Mary visits her, Elizabeth (who is pregnant with John the Baptist) is filled with the Holy Spirit, too. Elizabeth now confirms Mary's conception: "But why am I so favoured, that the mother of my Lord should come to me?" With the word "Lord" for Mary's baby, is Elizabeth emphasizing the unity of God-the-father and Jesus-the-coming-son?

Luke does not waste many words on Josef. Regarding fatherhood, it might be telling that Josef is only introduced when it is time for the Roman census. He belongs to the house of David and is therefore





 

directed to Bethlehem. From a Roman perspective, it makes perfect sense to let everyone register at their, say, tribal headquarters. First of all, such an arrangement prevents most people in the Jewish peasant, tribal society to travel far, if at all. Secondly, the probability of dependable identification is higher among — an expected concentration of — relatives, friends and other acquaintances. Josef is accompanied by "Mary, who was pledged to be married to him and was expecting a child." Please note, it says "a child," not his child, that is Josef's.

Luke is subsequently silent on Mary and Josef actually taking part in the census. "[T]he time came for the baby to be born." Bethlehem as the place of birth substantiates the claim to king David's lineage. Jesus is placed in a manger. As "there was no room for them in the inn," they seem to have forfeited registration at least by the Romans. They would surely have written Josef down as Jesus' father. Rather than having to explain multiple fatherhood, God gets away with it. The initial birth announcement is made by an angel to shepherds. After verifying that "all the things they had heard and seen […] were just as they had been told," the shepherds "spread the word." The early youth of Jesus is uneventful enough. Luke reports that "the child grew and became strong; he was filled with wisdom, and the grace of God was upon him."

Now consider Matthew's account. Mary, he writes, "was found to be with child through the Holy Spirit." Apparently, at one stage Josef notices her pregnancy. As he rules himself out as the biological father, "he had in mind to divorce her quietly." Matthew explains that it is to Josef that an angel divulges the nature of her conception: "do not be afraid to take Mary home as your wife." The angel leaves Josef instructions for naming the child.

Bethlehem is also stated by Matthew as the place of birth. It sets the scene for Herod's involvement. Herod rules as king over Judea, which includes Bethlehem. He meets some magi, or wise men, who have come from the east, inquiring after "the one who has been born king of the Jews." Herod pretends an equal interest in worship: "[a]s soon as you find him, report to me." Under guidance from a star, the magi locate "the house[, where] they saw the child with his mother Mary. […] T]hey bowed down and worshipped him. Then they opened their treasures and presented him with gifts[. …] And having been warned in a dream not to go back to Herod, they returned to their country by another route."

Matthew now has again an angel appear to Josef, giving him receives warning that "Herod is going to search for the child to kill him." They are to escape to Egypt. After receiving word of Herod's death from "an angel of the Lord," Josef and his family do not return to Judea. Instead, Matthew informs, "he withdrew to the district of Galilee, and he went and lived in a town called Nazareth." It is of particular interest that Matthew puts this forward as fulfilling the prophecy that Jesus "will be called a Nazarene."

So, Luke starts from Nazareth and subsequently offers an explanation for the Judean affiliation of Jesus. With Matthew it is exactly the other way around; starting from Bethlehem, he builds the case for Jesus as a Galilean.

Juxtaposing gospels, another concept of *identity* provides a theme for discussion. It is "the state of being the same in substance, nature, qualities, etc.; absolute sameness."[86: 674] As already indicated, Matthew and Luke — or whoever author-ized the narratives carrying these names — have certainly produced different texts. Now, that does not have to pose any problems. The requirement of identity-as-sameness is clearly nonsense when looking at separate items in the first place. The proper question is whether such essentially different texts, or signs, identify one-and-the-same object, in this case the historical Jesus. A reliance on identity-as-uniqueness of space and time helps to draw out contradictions. Arguing from the assumption of a single place of residence at a particular point in time, Luke has Jesus spend his early youth in Galilee while Matthew places him at that time in Egypt. Therefore, honoring the constraint, both accounts cannot be accurate.

The birth story, or myth, of Jesus has been commented upon at such length here, because it seems so much at odds with identity management. But is it, really? It should be possible to make evolutionary sense of the success from tangling identities. Isn't a reasonable hypothesis that the myth intertwines identities to such an extent that only the assumption of a single superidentity restores order? In such a scheme, Jesus figures the necessary reconciliation of every mortal being with the added superidentity. If so, as a movement with a persistent record of supporters for two millennia now, its ideology qualifies as identity management, not despite, but precisely because of the use it makes of tying up identities into an irresolvable knot by setting up the miraculous escape from it.

The general point this seemingly out-of-place analysis, above, tries to make is that there is more to identity management than one-to-one positive identification and verification. A semiotics of identity management provides the enlarged framework required for the requisite variety. Before that framework proper is addressed in part 2, a last introductory paragraph continues to widen concerns for identity management.

### 1.6 A false security in management

When I encounter popular use of the term *management*, I cannot help starting to feel suspicious. Another example, currently en vogue, is of course *architecture* (with *system* now rapidly losing persuasive power). Such words are suggestive of a positively-valued qualification, i.e. an advertisement. But what are actual, real benefits?

In the case of *management*, too, a false sense of security (also read: safety) might easily be promoted about the proposed what-of-management, in this case *identity*. In other words, a reference to management attemps to argue — unconsciously, more often than not — for an unproblematic status of

the core concept presented. Implicitly underlying — the promise of — management's application is the assumption of identity's secure existence. Ah, yes, identity. Quite. That's settled, then. So, now it 'only' remains to be managed. The label might as well read *identity security*.

It is not that simple, at least not with identity. Indeed, especially identity escapes singular, absolute definition, as required to ground the concept of … identity, and so on.[18: 379-381; 35: 385-388; 9: 682-684] Clegg summarizes Foucault's position:

> Identity is never fixed in its expression nor given by nature. No rational, unified human being, or class or gendered subject is the focus or source of the expression of identity. [… It] is contingent, provisional, achieved not given. Identity is always in process, always subject to reproduction or transformation through discursive practices that secure or refuse particular posited identities.[19: 29]

What about *individual*? Does it offer solid conceptual ground?[60; 85; 31] Does a particular meaning of identity entail what distinguishes one individual from another? But, then, isn't *identity* actually a strange term, a misnomer even? Wouldn't *distinction*, or *difference*, be more suitable? A host of philosophical writers, e.g. Derrida, apply this perspective … in various ways. Debunking "neo-dogmatic slumber," Molnar argues:

> Disengagement from the Hegelian *fascinatio* must […] begin with the proposal of a different epistemology, one whose ideal is not fusion but *distinction*. It is through distinction that the mind operates, concepts are articulated, and being is understood. It is through distinction that we recognize the objective reality of the extramental world (as distinguished from the self), of the moral elements in human situations, and of the inherent limits of human beings in thought and action.[59: xv]

Apart from *individual* being a problematic concept, too, the question of *difference management* only arises when both more than one individual exists and a particular individual needs to establish his … identity. Is perhaps a different meaning of *identity* invoked? Synchronic identity of different individuals is a contradiction. Identity pertains to diachronicity of a single individual.

Yes, what is meant at this stage is the *continuity* of an individual's existence. Or at least the recurrence of an appearance. That is, the *difference* is here not between separate individuals in a possibly single event, but between separate events in which a single individual is involved. It calls Wittgenstein's image of relatedness through family resemblance to mind.[95: 32] Following the life trail of an individual, it leads back to *identity management*. I shall simply leave it at that, as far as the label goes. However, I prefer to conceive of it as *i/d management*, with *i/d* standing for *identity & difference*. The concepts are essentially interdependent.

> Identities are not absolute but are always relational: one can only be something in relation to some other thing. Identity implies difference, rather than something intrinsic to a particular person or category of experience.[19: 29]

Such perplexities may find compact expression through contragrammar.[38] A contragram playfully hypothesizes an equivalence of inverse relationships. It thereby immediately raises questions of



 

identity and difference (and may even point at reconciliation through an oscillation of concepts). For example, with two terms x and y involved, contragrammar's formula is: the x of y is the y of x. So, for the (meta)terms identity and difference, the subsequent contragram reads: The identity of difference is the difference of identity.

Wouldn't many difficulties simply disappear, or have never arisen in the first place, if I had only phrased the theme differently, for example as *identification management*? Certainly not, for sooner or later the *object* of identification, i.e. the individual, should be confronted. It 'is' difference *and* identity, to be sure. And there shouldn't be an a priori constraint on which objects/individuals count.

When I have so far refrained from emphasizing that individuals subject(ed) to identity management are not limited to persons, it is only because I couldn't fit it in just yet. Indeed, animals and even plants *actively* perform identity management (see below). And a human community settles on more than one plot of land, its members live in more than one house, drive more than one car, milk more than one cow, etcetera, etcetera. The idea of community management (sic!), therefore, implies — requirements for — identity management. It follows next that identity management includes relationships. Which individual house is built on which individual plot of land, etcetera? The 'plot' thickens when identification is recognized to largely rest on correlation. A person may — seek to — establish an identity by referring to his date of birth, for which he then states a date identification, etcetera. A so-called status symbol entails a more elaborate attempt at manipulating identity. Identity, and therefore identification, turns out to consist of a dynamic structure of differences.

## 2. Identity in enneadic dynamics

### 2.1 Introducing Peircean semiosis

The extended identity management is ultimately grounded on semiotics, with its core concept of semiosis. Semiotics is about signs, and semiosis is explained in more detail shortly.

First, who produces and interprets signs? Isn't it obvious that an individual does, i.e. a particular (human) person? At least I shall treat — the concept of — a person like that. But, really, person is yet another problematic concept. It involves a variety which a generalized theory of identity management should encompass.

> The term 'person' has a history of special use in legal and theological contexts. Apart from these, the term is often synonymous with 'human being'. The history of thought about persons is thus linked to changing legal, social, and theological trends as well as to more general reflection on the nature of the human subject, the 'I' that thinks, feels, reflects on itself and its doings, and carries responsibility for his previous

> actions. […] The problem of personal identity resolves into two different questions, one concerning the unity of the self at a time, and the other with dealing with unity through time.[9: 692]

Peirce (1839-1914) is an eccentric scholar of Renaissance character producing an enormous volume of work of great variety.[10; 43] It cannot be divided in disjunct philosophical classes. At least two conflicting frames of reference may be recognized, i.e. transcendentalism versus naturalism.[34: 5-7] While Peirce certainly shifts emphasis from one object of study to another, he pursues a unifying approach, admittedly with various degrees of success. What concerns me here is precisely Peirce's overriding unification, for which I consider his concept of semiosis exemplary. Semiosis is

> an action, or influence, which is, or involves, a coöperation of *three* subjects, such as a sign, its object, and its interpretant, this tri-relative influence not being in any way resolvable into actions between pairs.[64: 282]

More specifically,

> [t]he sign stands for something, its *object*. [… And it] addresses somebody, that is, creates in the mind of that person an equivalent sign, or perhaps a more developed sign. That sign which it creates I call the *interpretant* of the first sign.[63: 99]

An abstracted schematic representation is the semiotic triad, as in figure 1. Peirce's key idea is that interpretant is not directly related to object. He deals with experience and behavior by making their relationship itself explicit as a third term: sign mediates. This additional, third element balances traditional idealism with realism. His innovative triad is a succinct expression of transcendentalism. Peirce emphasizes its irreducible nature, i.e. any reduction compromises the integrity of so-called semiosis. And Peirce's *irreducible* triad of course strongly establishes his semiotics as a phenomenology, too. Interpretation as Peirce suggests, therefore, is closely related to the concept of a perceptual or phenomenal field.[20: 25]

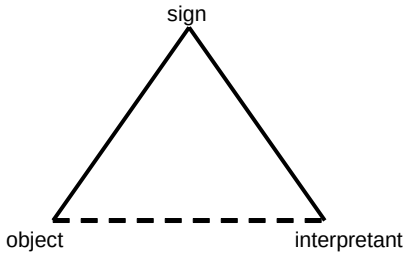


*Figure 1: Peirce's semiotic triad.*

A preliminary result may already be derived from the triad. It allows making a formal distinction, much needed, between identity and identification. The former, identity, entails the object itself. Identification, on the other hand, is the sign that *acts* as a reference. Therefore identification is *not* the



 

identity; it stands for it. This observation lies at the heart of criticisms directed at the pre-semiotic logic of Aristotle.[24; 45; 25] As Peirce remarks:

> The Sign can only represent the Object and tell about it. It cannot furnish acquaintance with or recognition of that Object.[63: 100]

A corollary entails different meanings for security. Actually, there are three — main — meanings as they correspond to the semiotic triad's elements. Interdependency rules between an object's security, a sign's accuracy (also read: precision or rigor) and an interpretant's relevance. Please note that for practical purposes I have not written "a sign's security," etcetera.

### 2.2 Variety: enneadic semiosis

The triad lacks requisite variety [2] for reconciling identity with difference. Still, Peirce offers an important clue for development where he argues that a sign

> is something which stands to somebody for something in some respect or capacity. [… It] stands for that object, not in all respects, but in reference to a sort of *idea*, which I have sometimes called the *ground* of the [sign].[63: 99]

Elsewhere, I have first 'grounded' each element, thereby developing the triad into a hexad. Next, in the opposite direction I have added elements for precision; the final result is an ennead.[90: 146] Figure 2 reproduces the semiotic ennead. The 'identifications' (in enneadic terms, also read: signatures) for the elements have undergone slight modification as compared to the original version.[93]

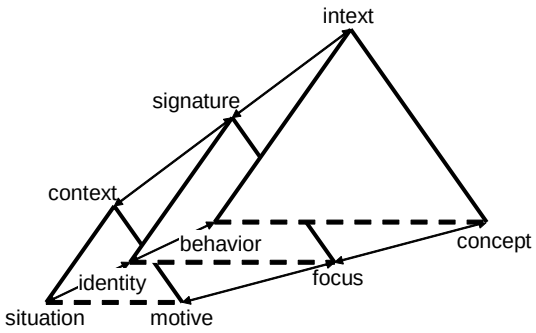


*Figure 2: Semiotic ennead.*

The ennead retains Peirce's essential assumption on transcendentalism. So, it also *irreducibly* links all its elements in semiosis. The original three elements reappear as dimensions, each dimension now constituted by three more detailed elements. For example, the dimension of interpretation involves motive, focus and concept.



 

It is beyond the scope of this overview of semiotics of identity management to elaborate at length on enneadic dynamics. The next paragraph explains movements along the sign dimension. Here I just mention in general that shifts *along* a single dimension are assumed to occur hierarchically. In one direction, for example the focus can shift into what was motivational before. Thus the concept broadens. In the other direction, the focus may shift down to a narrower concept than was considered previously. This is accompanied by a broader motive.

> [A] contraction of reference accompanies an expansion of awareness, and an expansion of reference accompanies a contraction of awareness.[83: 10]

In the semiotic ennead, formal correspondences rule between dimensions. A signature therefore mediates a focus on an identity. In similar fashion, other relationships within the ennead hold.

The semiotic ennead safeguards against conceptual simplification. It can be called upon whenever relevant rigor seems beyond currently applied differences.[91; 94] However, it is cumbersome to suggest semiosis in every separate sign, i.e. explicitly touching all dimensions and their elements. A practical emphasis usually operates. In — modern — science, signs are even — supposed to be — especially selected for abstraction from interpretational (also read: psychological, or subjective) variety. Active denial of subjectivity becomes a problem when real differences have a subjective (also read: individual) basis in interpretation.[72]

Until recently, science also largely ignored the sign dimension. This has certainly changed with the linguistic turn in philosophy, that is, adopting linguistic methods.[75] Regretfully, though, Peirce's explicit prescription for irreducibility of elements/dimensions still seems largely overlooked, and violated. Modern linguistic disciplines deny interpretational variety where they should include it. They often proceeded to treat signs as objects, thereby losing view of the relationship between sign and object, too. Symbolic logic is likewise often practiced at irrecoverable distance from empirical identification.

I'd like to draw special attention to the way how the semiotic ennead encompasses motive and identity in a single 'system.' With the relativism inclusion of motive affords, some puzzles of strictly objectivist logic simply dissolve. An example is the so-called sorites paradox.[42] Once again, what is essentially questioned as paradoxical is identity (and, by consequence, difference, too). Soros (Greek: σωρός) means heap. Now take some sand, for example. How much sand is needed for the accumulation to be rightly called a heap? This only leads to a paradox when considered from an absolutist perspective. Changing perspective, it simply dissolves as a pseudo-problem. For it depends on both the particular subject and his particular situation what counts as a heap, i.e. is the relevant concept. There is nothing at all vague about the designation, in this case a heap, as soon as the subjective situation is predicated.

### 2.3 Toward a structural concept of identity

One of the ennead's elements is labeled *identity*. It occupies the pivotal position along the object dimension. Such a structural(ist) position dissolves any frustration with unattainable definition in an absolute sense. As it were, identity is unburdened. Conceptual load is shared between all elements of the semiotic ennead. Identity itself is even radically changed into a pivot, *only*. It should function unhampered as a hinge between situation and behavior. The current paragraph reproduces a demonstration [39] limited to the object dimension, that is, without taking the two other semiotic dimensions explicitly into account. (As argued before, the bias of expressing-by-sign is even impossible to avoid; sign expression is a pleonasm.)

Social psychology instructs about the situational nature of behavior.[24; 25; 17] An actor, or agent (or object, or individual), is assumed to reside in various situations. Hence variety exists in the actor's behavior. In fact, a particular behavior completely corresponds with the actor *as far as a particular situation goes*. Adding situation and behavior therefore turns inside-out the treatment of an actor as entity/object. Only an actor y's barest identity remains necessary and sufficient for relating a situation x and a behavior z (figure 3.a). The whole of actor y is now reflected by his particular behaviors *across relevant situations* (figure 3.b).

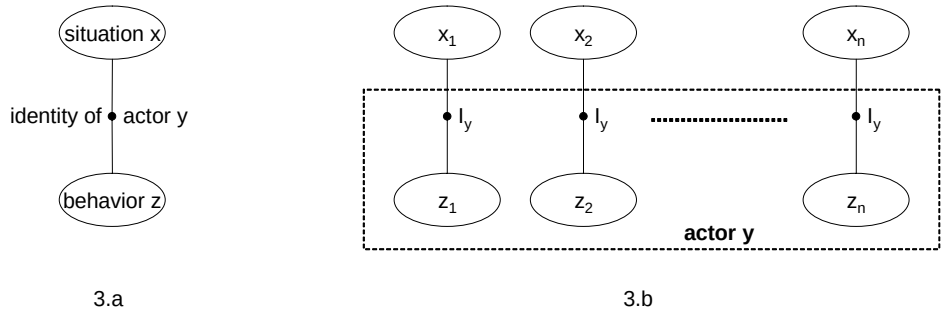


*Figure 3: The object dimension of situation, (actor's) identity and behavior.*

Please note that juxtaposition of behaviors rests on repeating the — reference to the — actor's identity. An instance of identity exists for every relevant situation, i.e. where the actor has a particular behavior. Through repeated identities, differences (particular behaviors) are reconciled with unity (one actor).

Additional compactness and flexibility comes from the assumption that situation, (actor's) identity and behavior are relative concepts. A rigorous set of modeling constructs applies throughout. Following the spatial orientation of figure 3, decomposition can proceed both up and downward.

Upward, for example situation $x_1$ can itself be considered as constituted by several actors' identities — presumably all different from $I_y$ — appearing in a correspondingly less determined situation.

Introducing levels, the original situation $x_1$ may be designated as situation $x_{m, 1}$. The result of one step of upward decomposition is shown in figure 4. The limit to upward decomposition lies in ambiguity. It can proceed as long as identities at the next lower level, such as $I_y$ for the step illustrated here, can connect with only a single identity in what previously was held as an undifferentiated situation.

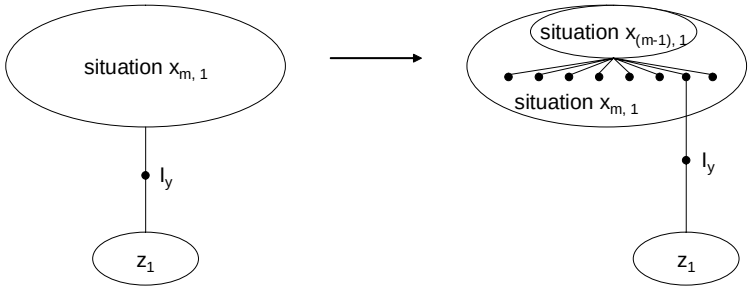


*Figure 4: Upward decomposition.*

Upward decomposition has a paradoxical ring to it. Its purpose is not to break *down* a whole into parts, but to discover structure *up* in a situation. It can be extremely productive to attempt it from any instance of an identity as a starting point. Is a person's particular behavior correctly located in a city? Or is specific reference to his home — within the city — more apt? Or doesn't it matter in which city his home happens to be (and was the original situational designation irrelevant, even)? In figure 5, the right hand side of figure 4 has been adapted to indicate what after one step of upward decomposition now count as situation, identity and behavior.

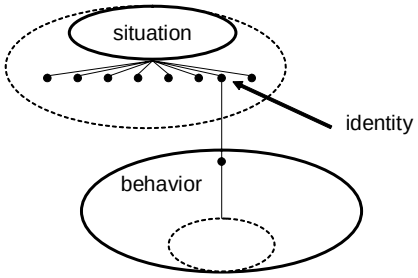


*Figure 5: A shifted configuration of situation, identity and behavior.*

Reading figures 4 and 5 in reverse order gives an impression of downward decomposition; the original identity is encapsulated within a more determined situation while the original behavior is decomposed into identities, each with situational behavior at a lower level of the conceptual model.

There are no limits to upward and downward decomposition, at least not theoretically. An upper boundary condition must be formally set, however. It reflects the model's horizon, corresponding to the most generally accounted for, that is, the least determined situation; in metapattern's visual language it is a thick horizontal line.

For a hint at where downward decomposition may ultimately lead to, it seems apt to mention connectionism. It reflects the perspective, often associated with artificial intelligence, on meaning as a neural process.[58: 166-167] Then, brain activity is engaged in identity management as outlined here. The ennead provides a sophisticated metamodel for connectionism, too. A conceptual *model* itself lies along the sign dimension and takes on the shape of a lattice of nodes. Some nodes are connected to the 'horizon.' Different instances of equal identity may be connected laterally to indicate that an actor's behavior in one situation is invoked from — his behavior in — another situation.

How dynamics are accommodated also goes beyond the fixed, singular instance of traditional identity. On the assumption that each instance of an identity is supplied with a unique … identifier, such instances can be moved about in a controlled manner. For example, the home address of person A was $x_1$ up to time $t_1$, and from then on it has been $x_2$.

The more radical decomposition in both directions is, and including finely grained management of temporal variety, the more an actual model moves toward a lattice consisting mainly of identities. That is, they serve to *connect*. Only relatively little behavior remains to be specified at — what has been designed as — the extreme result of downward decomposition.

### 2.4 The systemic nature of identity management

Radical decomposition suggests an object's identity emerges from differences, i.e. consists of relationships with different objects. Likewise, every such different object also exists as an emerging identity. Identities mutually determine each other, and for living beings dynamically so.[46]

The general implication is that identity cannot be managed in isolation. Other identities are necessarily involved. Absolute autonomy is an illusion. Identity management is systemic. Identity management *is* relationship management.

Peircean semiotics instructs that an object cannot be directly known. Identification mediates identity. Foucault (1926-1984) emphasizes identity management as power play by institutions, i.e. in (social) situations. His studies inquire into

> the power of normalization and the formation of knowledge in modern society.[28: 308]

Etzioni also explores "the nature of compliance in the organization," in his case for arriving at "middle-range organizational theory."[26: xii]

Interdependency of identities has in practice not been applied for radically integrated management. There are many constraints. First and foremost, hardly recognized yet is the need to strike a social

*balance* between identity and difference. For example, with dogmatic reference to privacy, identity is often argued for as an absolute value. However, identity taken to this extreme ends up at its opposite; absolute difference is equal nonsense. In general, bias is a common source of divided identity management. Then, a particular interest leads to only considering a corresponding kind of object as carrying identity. Apartheid is the paradigm praxis.[8: 195-225] Properties are seen as internal to an object, i.e. encapsulated, rather than constituted by relationships with different objects in their own 'right.' However, one interest's *main object* may be another interest's *object property*. And several interests may include similar properties. It all results in multiple duplication.

A rational design for identity management would start from its systemic nature, instead. Privacy, too, entails social relationships. Actual choices must of course be politically made. Human interest is ultimately moral. In a similar vein, appreciation of identity as a system of interdependencies may guide historical research into management theories & practices. However, I would first like to radicalize the framework. I shall present a concept of language that — I find — is consistent with the semiotic ennead. Language, too, must be properly situated and my cue comes from Schopenhauer.

**2.5 Language use <u>is</u> identity management**

Schopenhauer designed a transcendental concept of great practical value, the will, for dissolving the *Weltknoten*. The knot-of-the-world is his metaphor for the fundamental question of mind-body dualism. Associated with both the concept of an individual as a unique objectification of the will and an individual's capacity for empathy, he rigorously accounts for large variety.[80; 81] The semiotic ennead includes and thus enhances Schopenhauer's conceptual scheme, too, adding formal precision as motive now correlates with context and situation.[90]

Every instance of semiosis is unique. This assumption alone argues for the irreconcilable difference between, on the one hand, an interpretation resulting in a sign-as-produced and an interpretation resulting from a sign-as-consumed on the other hand. Significs already establishes the formal distinction between speaker's and hearer's meaning. Mannoury (1867-1956) already stipulates the difference in his early work on the foundations of mathematics,[51] i.e. before he was introduced to significs. In his later development of significs, it is a recurrent theme.[52; 53] The irreducible part motive plays in enneadic semiosis explains the nature of sign use, i.e. language: Every sign is a request for compliance. This slogan is my own,[90] but I have subsequently learned that Brouwer already holds an equally radical motto for language use.[79: 204-205]

The idea that every sign aims at compliance impinges on the concept of identity management. It can, and should, now be approached from such a generalized language perspective. As I have already made extensive sign decompositions along enneadic lines elsewhere,[90: 235-291] here I only provide a summary. Please note, such sign structures have a generative quality which is essentially pragmatic,

that is, they have no relationship at all with transformational grammar, for example (as such attempts at structure don't include the interpretation dimension, and even reduce — in case of syntax, on purpose — sign structure from a relationship with the object dimension, too).

For the sake of overview, a single sign exchange is limited to two participants: sign producer $A_1$ and sign observer $A_2$. Figure 6 reproduces the full dia-enneadic model for sign exchange.[93]

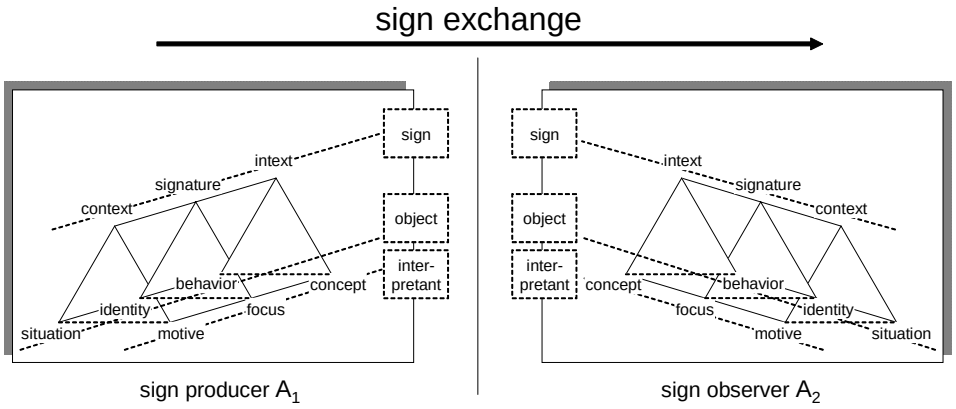


*Figure 6: Dia-enneadic sign exchange.*

For a particular exchange, $A_1$ acts as the sign producer, with $A_2$ as the sign observer or sign consumer. By definition, the initiative lies with $A_1$. A particular motive induces him to attempt to elicit behavior from $A_2$. A focus connects his motive to a concept of $A_2$'s projected behavior. On the surface, there seem three 'units' to identify with the sign:

1. $A_2$ should learn that he is called upon to exhibit behavior.
2. The behavior for compliance needs to be specified.
3. $A_1$ should be known as the requester, if not the beneficiary.

Again, it is not that simple. An enormous variety must be reckoned with in sign production. It is roughly dependent on

a. the relationship between $A_1$ and $A_2$ *as seen by* $A_1$, and
b. the behavioral request *as put 'up' by* $A_1$ for compliance by $A_2$.

Their relationship is far from constant, though. This particular sign, too, will influence it, and so on. It reflects the emerging nature of identity. $A_1$ will always integrate a strategic assessment. What are the opportunities and/or risks for his ongoing relationship with $A_2$? As for identifying $A_2$ in his sign, he can choose from no identification at all to the most precise and explicit identification he can muster. Similar theoretical ranges exist for referring to the behavior required and for identifying himself as the sign producer. The practical options of course depend on $A_1$'s actual repertoire for identity management. When language use in its widest sense is all treated as identity management, previously

unsuspected phenomena can be analyzed coherently. The practice of communication *is* identity management.[32]

The dia-enneadic framework displays, by definition, eighteen interacting elements. Deployed fully, it provides a correspondingly rich concept of information and — from the assumptions for the framework — communication. Information concepts with reduced variety can simply be 'produced' as elements are removed. This procedure explains why several disciplines *not* commonly associate information with identity management. For example, an information concept that only 'fits' physical signal transmission is far from behaviorally relevant in any motivated sense. Although lacking a systemic approach, that is, not from an overall formal framework such as paired enneads, Capurro already points at conceptual differentiation:

> I object to analogies being made, not to mention an equivalence assumed, from incommensurable horizons. On the contrary, a differential characterization of the concept of information is required for particular areas in order to establish fundamental boundaries as exist between, for example, genetic information and what is considered "human transmission of meaning."[16]

**2.6 A natural history of identity management**

At least what I've done is claim an origin and relevance for identity management beyond historical sources and strictly cultural explanation. The semiotic framework for identity management applies outside human culture, i.e. it is also relevant for so-called natural behaviors. What an inter-, multi- or whatever-disciplinary design may lose — now, does it, really? — on 'professional,' rigorous reference to singular disciplines is, through innovative audacity, hopefully gained on general relevance. Schopenhauer and Peirce, for example, remained academic outsiders during their own lives. Synthesis is initially often dismissed as amateuristic. Therefore, some adventurous conjectures on ethology [54] or, more specifically, zoosemiotics [62] could prove academically risky, but I certainly believe they help. A genuinely general(ized) theory of identity management should easily negotiate the traditional distinction between natural and cultural behavior, and also hold regardless of the — species of the — organisms.[36] This requirement for theoretical relevance fits Mannoury's principle of graduality (also read: relativity).

> Nature is continuous. It doesn't entail acute differences, there are no sharp boundaries. Nature holds no absolute similarities, nor is anything absolutely stable. And when we try to apply words for referring to an object or an appearance that belongs to this nature, we find it impossible to overcome this indiscriminate character, that is, a relatedness of one to the other.[51: 5]

An orientation at natural behavior draws attention to the *asymmetries* of sign exchange. There is no cultural superstructure where 'rules of order' may be mistaken for the 'order' itself. Yet, it is 'normal'



 

that $A_1$ wants $A_2$ to comply with the former's rule as the latter's reality. What is 'cultural' in addition to 'natural' might not be the attempt at imposing a rule (which is already natural), but the motivated adaptability: rules may change by design. For with propaganda invested in beliefs of human societies 'ruled' by equality, solidarity, etcetera, and real achievements in emancipation notwithstanding, stepping outside human sign exchange for a minute just might secure theoretical validity. Yes, of course, it is clearly impossible for a human being to step outside human sign exchange. I have already acknowledged, repeatedly so, this inevitable bias. What I mean is the object, rather than the subject of inquiry.

As ethology goes, I'll argue from abstraction, that is, sticking to $A_1$ and $A_2$, only suggesting intermediary examples for inspiration and/or popular illustration. Imagine an interaction where $A_1$ is the predator and $A_2$ is the prey. How does $A_1$ manage his own identity? It depends. Suppose $A_1$ has actually spotted $A_2$ and is hungry. (Or, does $A_1$ spot $A_2$ *because* he, $A_1$, that is, is hungry?) As long as — the situation is that — he is maneuvering himself into a promising attacking position while $A_2$ still has serious defense/escape options, $A_1$ should profit from hiding his *own* identity. He can try to remain completely unnoticed, or do this by faking a different identity, one that $A_2$ doesn't find threatening. Mimicry is usually reserved to indicate faking behavior to threaten off an opponent of superior strength. Let's say that $A_1$ has come within striking distance of $A_2$. When $A_1$ can only overpower $A_2$ by surprise, up to the very strike he will continue his attempts to manage no identity, or a different one. There really is no paradox when *no identity* is considered from the perspective $A_1$ applies to manipulating $A_2$'s perspective. Or, on the assumption that experience of his identity may undermine $A_2$'s defense, $A_1$ can forcefully show it (or fake a different identity for *that* purpose). Does a dog, just to mention two options, bark aggressively to scare another dog into an easier victim or does he bark to scare off an opponent dog which he evaluates as actually more powerful?

There is a solid case for a rich natural variety in identity management. Isn't it obvious that, when $A_1$ is the prey and $A_2$ the predator, other ranges of identity behaviors may hold for $A_1$? The variety of situations is infinite: mating, childrearing, etcetera. The semiotic ennead, where identity relates situation with behavior, points to an equally infinite variety of behaviors where identity is involved. And, please note, I'm still only referring to an actor's *own* identity. My hypothesis is that one actor, say the predator, *manages* his own identity when he potentially offers differential behavior for influencing how other actors shall behave. I should add that I find the issue of consciousness pragmatically irrelevant. Does an octopus have consciousness? I am here only concerned with variety in his appearance. So, yes, mastering to change skin coloring etcetera, an octopus certainly is an identity manager. The influence is achieved not through direct physical impact or impulse, but caused through sign.[80: 62] A sign of course only draws effect, whichever way, when the other actor is (also)

capable of sign consumption, i.e. semiosis. This is why a dia-enneadic model is required for adequately explaining sign exchange.

### 2.7 Security balance in the natural state

No matter how anecdotally I have sketched variety in identity management, it must be acknowledged that identification is not a linear function with general validity. A reliable sign of identity is not *necessarily* good, let alone that a more reliable sign is *always* better. Again, it depends. Take the rabbit baby $A_1$ and his rabbit mother $A_2$. The mother wants optimal conditions for supervising her baby. For that 'situation' alone, the baby should carry markings making him as clearly distinguishable as possible. The baby's survival is promoted when the mother can easily establish control. The same markings, however, may threaten the baby's survival in a different 'situation,' i.e. when thereby a predator can more easily recognize him as prey. So, it's about ecological balance. Balanced capacities for self-identity management are constituents of evolutionary fitness. When new situations arise, the old capacities may not support survival. Yet, an evolutionary orientation introduces broader feedback constraints; successful self-security of a species at one stage may create the conditions for population decline and even extinction.

Orientation at the natural state shows that self-management of self-identity *is* also self-management of self-security. I apologize for this contrived expression. It helps to set the stage, though, for dealing with *security* as a cultural, non-linear phenomenon. Instead, it is a matter of optimization. Security and risk should be situationally balanced. Suggestive of such equilibrium, it would also be useful when it could be shown that social animal life exceeds self-management of self-identity. When does identity management become a group phenomenon? Structurally, what I mean is minimally a tri-partite relationship. A third party enters the stage. Again, variety. Examples? Such a third party may also be brought onto the stage at the initiative of one or both of the original actors. Or, it may actually be a 'first party' who engages other actors for compliance, also taking on the third party-role for that purpose. In such situations, the original actors $A_1$ and $A_2$ both — but of course each for his own motives — acknowledge the 'third party' as an intermediary for identity issues and all that depends on the behavioral precision it allows. Now, let me just guess. Does the matriarch of an elephant herd determine mating partners? I leave such questions open, here. I'm sure many have already been answered elsewhere through ethological research. In a religious community, it should be interesting to discern which identity issues are at the discretion of, when present, the church patriarch.

### 2.8 Individual relational experience

Before engaging a third party in — the generalized theory of — identity management, however, a more basic social concept should be developed first: relationship. I take it as a corollary of

methodological individualism [5; 30] that social relationships are essentially one-to-one, that is, between $A_m$ and $A_n$. Please note that I am trying to take the generalization another step by introducing symbols *m* and *n* more closely associated with variables

Then, $A_m$ is an individual 'object' capable of semiosis. This requirement includes memory. Remaining with $A_m$'s perspective, $A_n$ reflects a pragmatic belief he holds, too, and can therefore be anything he imagines. What counts here is that $A_m$ believes $A_n$ exists and that they have a relationship, i.e. engage in instances of sign exchange.

Let $A_m$ and $A_m$ *both* be actors, anyway. It emphasizes that the relationship is an individual experience for *each one* of them. In other words, $A_m$'s experience of relating to $A_n$ is *different* from $A_n$'s experience of relating to $A_m$. My short-hand notation, just for the sake of convenience, is $a_n@A_m$, respectively $a_m@A_n$. A special case is $a_m@A_m$: self-experience.

A particular behavior by $A_n$ can of course impact $a_n@A_m$, that is, act as a constituent of the relational experience $A_m$ holds over $A_n$, *only* when $A_m$ actually attributes it to $A_n$. It follows that all behaviors in one actor's particular relational experience have at least the other, related actor as their common attribute. For $A_m$, $A_n$ appears both diachronically identical (the same individual 'other' is involved throughout) and different (at the level of his behaviors). It is therefore an identity attributed to $A_n$ with which $A_m$ connects separate behavioral experiences with $A_n$ into an overall relational experience, underlying his experience of their relationship's continuity. The experience of other-identity provides the focus for relational experience. Identity management is conditional for relational experience. As I have already emphasized, modes of identity signification can vary widely. The potential prey $A_n$ who applies camouflage, for example, tries to remain outside predator $A_m$'s $a_n@A_m$, at least while the danger 'situation' lasts.

In the natural state, $a_n@A_m$ strictly resides inside $A_m$. In other words, the — instrument for the — archive for relational experience is internal memory, only.[76]

Relational experience is instrumental for re-cognition. Ample opportunities for error exist, though. For example, $A_m$ may identify another individual, but the wrong one. Then, $a_n@A_m$ is not updated, but $a_p@A_m$ inadvertently is. A direct survival issue is how such 'mistakes' impact on $A_m$'s own security, and on $A_n$'s, $A_p$'s, and so on, for that matter. Once again, it seems that the requirement for precision in identity management is contingent.

### 2.9 Subjective-situational identification requirements

I repeat that one actor's relational experience interprets his behavioral exchanges with another actor. What one actor constructs — and maintains — as another identity serves as the continuous focus: by definition, $A_n$'s identity acts (also read: signs) as the pervasive attribute of behaviors occasioning $A_m$ to form relational experience $a_n@A_m$.

(My concept of) methodological individualism implies that, when two individuals interact, they may have *different* needs for, respectively, attitudes toward identification. I emphasize this point. It lies at the basis of realistic identity management. I shall therefore sketch the space of variable identification in some more detail.

Let $A_m$ initiate an — instance of — interaction. What stand might he possibly take on the other actor's identity? An assistant working behind the counter in a bakery shop may not be particularly interested in positively identifying a customer who has walked in and orders a single loaf of bread. His interest, the assistant's, that is, should change when the stranger orders fifty apple pies, wants to take them immediately and reports that he will be back later to pay for them. And somebody who requests to drive off in a brand-new car without leaving sufficient payment 'security' behind, should of course expect additional scrutiny from the sales person.

Against the background of a — dynamic — relationship, identification requirements vary situationally, that is, from interaction to interaction. At one end of the range, $A_m$ requires becoming positively and completely certain about his co-actor's identity. So, $A_m$ seeks full guarantees to 'know' the other actor as $A_n$. He may then update $a_n@A_m$ with corresponding confidence. The other end of the range for identification requirements consists of $A_m$ refusing to learn about the identity of the other actor who participates in their interaction. Of course, when the other actor is perfectly anonymous, for all *n*, $A_m$'s relational experience $a_n@A_m$ remains unchanged. Even though the initiative for the interaction lies with $A_m$, that may be just want he wants.

Still taking the cue from $A_m$, his attitude with respect to $A_n$ identifying him with a particular behavior will vary, too. A similar range applies. At the one end, $A_m$ would like to be as certain as possible that $A_n$ correctly identifies him. And the other end of the attitudinal range is when $A_m$ does not want any doubt left that his involvement is kept secret, i.e. he acts anonymously.

With two such ranges, a two-dimensional space covers the interactionist perspective on identity for one actor committing himself to an interaction with another actor. See figure 7.

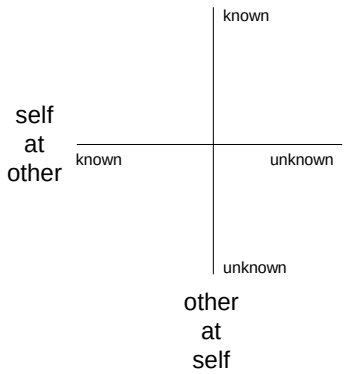


*Figure 7: Single actor's interactionist perspective on multiple actors' identities.*

Of course, every *other* actor just as well entertains an attitude toward identifying all actors in interaction (here, for overview's sake, with the number of actors limited to two). Figure 7 therefore holds for both $A_m$ and $A_n$ (that is, for $A_n$ with *n* as an even more general variable). Closer inspection reveals that at this level of generality it doesn't matter if one actor takes the initiative for an interaction. For example, when $A_m$ wants to be explicitly recognized, $A_n$ can nevertheless stubbornly try to avoid learning about $A_m$'s identity.

The attitude of $A_m$, respectively $A_n$, may be thought of as occupying a point in the two-dimensional space. These related representations express the extent of symmetry/asymmetry in their attitude regarding actors' identification. In figure 8, the axis for symmetry is added as a broken line. For example, when a message arrives with the request to pay a certain amount in taxes, do you accept at face value it was sent by the appropriate tax authority? Proportional 'amounts' of trust must first be established.

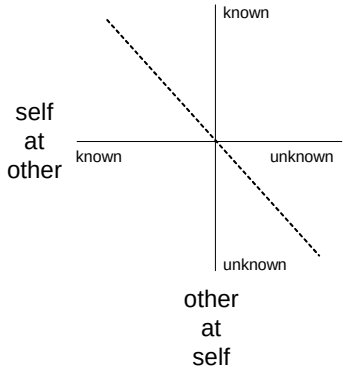


*Figure 8: Symmetry, or matching attitudes on identification.*

Interactions for which actors apply symmetrical, i.e. matching, perspectives are *by definition* conducted smoothly on identification (which, again, may include a demand for anonymity). Asymmetrical attitudes make interaction problematic, but can be 'solved' in a variety of ways. One actor, or both, may simply forgo the interaction. The withdrawal of any one actor is the end of the exchange. Of course, the actor should be free to 'act' in such a way. One actor may, for example, consume the other actor and thus mark the consummation of the exchange. When freedom is illusory, as it often is, the conflict is solved so as to facilitate the subsequent exchange. Actors may negotiate, with symmetry arrived at by consensus. Or, dependent on their relationship, the powerful actor may simply refuse to budge, forcing the weaker actor to change his attitude to comply. Power dictates symmetry. But, then, does the weaker actor really comply? Or does he only pretend symmetry, trying

to hold out from a position of less insecurity, i.e. where he believes his interests are less liable to suffer, and waiting for and even working at an opportunity to shift the balance?

## 3 Social practices in identity management

### 3.1 In(s) and out(s) of institutions

Identity management occurs in relationships. Actors engage in interaction from their respective motives. In other words, an exchange is always a meeting of individuals' interests, or will. A general concept of security, then, is whatever promotes interests. As interests vary with the situated subject, so does what contributes to — and may be experienced as — (its individual) security. It follows that a history of identity management is essentially a *political* history. In terms of power and knowledge, Foucault draws a similar conclusion.[28]

My historical sketch starts by examining several so-called (social) institutions. What is an institution? It should come as no surprise that I view an institution as a kind of situation. More precisely, an institution is an(other) attempt at control. This means it actually is institution *use* which is the productive concept for a social psychology. A similar move, by the way, was performed by Wittgenstein for the study of language when he emphasized language *use*.[95]

Through establishing, and maintaining, a particular situation, participants are subjected to behavioral control. One person seeks compliance from another person on the alleged authority of an alleged institution (also read: collective identity, which is of course a contradiction in terms). Whenever an exchange can be 'ordered' as taking place within a particular institution's sphere of influence, the actors involved are counted upon to exhibit corresponding behaviors.

Kinship is often regarded as the prototypical institution.

> [T]he study of varieties of kinship arrangements is one of the oldest interests of anthropology. Like language, kinship studies demonstrate the power of culture to form systems of thought and behavior on the level of groups rather than on the level of individuals.[37: 260]
>
> [T]wo principles are expressed in the organization of domestic life everywhere. The first is relatedness through *descent* or parentage. The second is relatedness through marriage or *affinity*. People who are related to each other through descent or a combination of affinity and descent are relatives, or kin. And the domain of ideas constituted by the beliefs and expectations kin share about one another is called *kinship*. [... M]arriage may [...] establish "parentage" with respect to children who are biologically unrelated to their culturally defined "father." [...] A similar distinction is necessary in the case of "mother."[37: 261]

The cultural character of kinship emphasizes its acquired nature. A person must first of all learn what kind of relative (s)he is to another person. What is actually learned is a system, not so much of labels,



 

but of behavioral patterns for interaction. Kinship effectively organizes role learning by aspiring actors. Wittgenstein, arguing how much of education is basically rote training (German: *Abrichtung*),[95: 4] would probably consider kinship a language game, too. When a subsequent exchange classifies as a particular relative-ness, corresponding acquired behavior(s) should be triggered.

The concept of relative draws attention to a characteristic that makes institution a key perspective on identity management. For an institution resides in a larger culture-scape (such a 'scape' being an encompassing institution, of course). Thus it becomes clear how an institution is occupied with entry control. Every institution divides a population. Insiders belong to an institution, and outsiders do not. Please note that institutional criteria are applied for classifying insiders and outsiders, respectively. An individual person may have different preferences. For example, no, I don't want to interact as the cousin with this aunt, yes, I would like to join my favorite soccer club. As the semiotic ennead indicates, identity 'connects' such various behaviors across situations; metapattern supports formal modeling.

Membership control relies on identification. At the scale of a small band of hunter-gatherers, near continuous bodily proximity seems to virtually (pun intended) guarantee one member's confidence in another actor's identity-as-a-member. Anyone else simply qualifies as a non-member. So scale, surely, is an important determinant for institutionalized identity management, i.e. for mediated attempts at a secure division between members and non-members. Immediate, sufficiently 'familiar' acquaintance among members cannot practically extend beyond a small community.

The kinship institution may quite well have arisen to accommodate an increasing scale of human habitat. Two different persons $A_m$ and $A_n$ may not be kin, for example. There just might be a person $A_p$, though, who is kin to both. Where kin still equals immediate familiarity, $A_p$ can act as identification broker between $A_m$ and $A_n$. Having networks of kin overlap provides an orally mediated device for identity management at the scale of the larger community/society. Of course, this conjecture stretches the relevance of kinship (far) beyond the domestic sphere.

Overlapping networks may not be efficient any longer for identity management as, say, the distance in kin between $A_m$ and $A_n$ exceeds a certain number of intermediaries. Rather than a single $A_p$ remarking to either $A_m$ or $A_n$, or to both, that he could vouch for their respective identities, it is now up to $A_m$ and/or $A_n$ to chart a path along several linking pins. Even if that could be managed, the incentive for intermediaries to participate in such a chain of identification is heavily compromised; what do they still stand to gain from such a small contribution, as set off against an effort which is inelastic?

Actors who aim to engage in exchange, but who find themselves at a significant distance in original kin, reflect a dimension of social change. In such a 'developed' society, often kin apparently does not (adequately) support the identity aspect of relationships that actors require for interactions to secure



 

interests. Actors can gain when they also become organized around their special interest. They actually engage in kin, too, albeit not of the 'relative' kind. Actually, the so-called special interest group is nowadays so common as an institution for affiliation that, at least in Western culture, any orientation at (original) kin beyond the nuclear family is exceptional.

Extending the concept of kin to special interest helps to explain why the original kinship system of identity management continues to function. What was added, and still is, are ever new and changing personal networks: a person has traditional relatives, but for example also colleagues in civil engineering, neighborhood residents, and so on. The social variety operating on identity has correspondingly increased.[3] The ubiquity of such networks has kept identification brokerage an efficient approach to identity management in daily life. A popular saying suggests that anyone can be reached through at most three phone calls (that is, assuming everybody involved can be contacted through that medium; should it now be email, instead?). However, the nature of identification may vary from one institution/network type to another.

Religion is also relevant for identity management. I believe it, too, can be appreciated best from a hypothesis about its origin. Man becomes conscious of (his) life's uncertainties. His motives drive him to control events, to secure results as benefiting his interests. While it usually is clear enough how to direct his actions, he is left with uncertainties. Mysticism/religion, then, becomes identifying targets for action. Once a particular range of events can thus be explained, or at least be addressed, man can start to do something about it. (S)he may try to promote them, or to prevent them from happening. Either way, the actor whom man now assumes 'responsible' may be influenced by his offerings. A sign is an offering, too: man requests compliance from what he holds for an addressable actor. Religion, therefore, is essentially an interest-based worldview.

It is impossible to hold views that are unbiased. Motives pervade action. This is precisely why Brouwer sets mysticism as a necessary limit to rational explanation and development. His attitude should not be confused with irrationality; in fact, he meant quite the opposite, i.e. recognizing rationality's natural limit is optimal.[13]

A church is of a different order than religion. Originally, it may have been that a church helps organize the requests a society's members direct at what they identify as axiomatized actors, deities etc. When all members participate, a church actually contributes to organizing the whole society. It can also be that an encompassing institution, such as a state, orders that its inhabitants should participate without exception. A church is then directly applied for state interests (with the state, according to methodological individualism, like the church, being an institution serving interests of particular persons). As it happens, Christianity is proclaimed Rome's state religion in year 324, of the common era, of course. From the perspective of identity management it is especially interesting to see how its





 

corresponding institution, i.e. the Christian church, borrows from original kinship for prescribing behavior: father, son. Yes, and mother.

For the so-called Western world, the Middle Ages coincide with church-mediated identity management. Societies were feudal. Secular lordship (or ladyship) might change abruptly. The church performs as a stabilizing force. It is also organized at the scale of immediate personal contacts. Among a largely sedentary and illiterate populace, not to mention how (il)literate the worldly rulers were, the church does not even have to develop institutionalized identity management in order to aid control.

### 3.2 The rise of pluriformity in power

The Middle Ages end when the more or less single hierarchy as constituted by a limited number of power institutions disintegrates.[6] Temporarily, anyway. Mutual reinforcement of wide-ranging developments (book printing, overseas trading, etcetera) results in both growth and redistribution of wealth. A significant number of persons becomes citizens. As recognized stakeholders in a society they demand, and are increasingly awarded, legal rights. However, specific rights cannot be properly managed without identity management.

An important point to make first is that wealth in the age of emerging citizenship is (more) liquid. Money lies at the heart of identity management. It provides a single dimension for expressing the value of exchanges. When money is identified in its own right, so to speak, economic activity is promoted. As distance in trust between participants increases (and their distance in power decreases through a common legal framework), a step toward securing rights is to record the exchange/transaction. It follows that the legal framework more or less prescribes what aspects in a transaction need to be identified, and how, in order for rights to be supported.

When a transaction occurs, ownership changes. Citizens acquire the basic right to be owners, too. For particular classes of objects, ownership entails subsequent rights and duties. For their administration (read: protection and enforcement), ownership may be registered according to the ruling legal framework.

The formation of nation states and the development of citizenship are mutually reinforcing aspects of overall change.[50] A sovereign state at least frees citizens from the instability of inherited rule and/or change of rule resulting from marriages within the noble class.

As it is, a state of citizens requires an explicit legal framework for social control. Interestingly, though, early citizen registration and citizen-related ownership etc. registration usually does not happen at the scale of the nation state. In many countries where citizen rights are formally established, churches keep record(s) of the main events in a person's life (birth, marriage, parenthood, death). Records of real estate property are usually kept by the local authority. Many other special-purpose registrations also originate in the centuries immediately following the Middle Ages. Often, as to be expected in





 

states where citizens are increasingly participating in government, money is the key. For example, the legal framework allows for entities to participate with so-called joint stock in economic transactions (the concept of their limited liability was only added in the nineteenth century).

This trend of recognizing actors with their possessions and contributions more individually soon permeates the wider culture. The new sciences of empiricism, for example, are also set on a course of identifying: general laws of nature and detailed classification schemes.

### 3.3 We, the standard

By the end of the eighteenth century, a citizen elite for some time already rules countries such as England and the Netherlands. Relatively speaking, some significant aspects of a democracy have developed.

An absolute monarch still rules France. When it comes, change is therefore radical. Yet in important ways, the French Revolution attempts merely to redesign the single power hierarchy (a pattern repeated by the Russian Revolution). The state is now placed at the pinnacle, but the practice of policing continues or even intensifies.[29: 153] Institutions that have collaborated with and effectively shaped the ancient regime are banned, or at least subsided. The church, for example, loses its immediate political position. But there is especially the revolutionary logic of state control, why France sets a new direction in identity management.

In the wake of the revolution, deliberate efforts at standardization are undertaken. Money can now be recognized as only a particular aspect of rationalized (e)valuation. Other aspects are also explicitly brought to bear upon identification with state authority to back it. Standardized measures for length, weight etc. are scientifically designed and developed, and politically enforced. Diffusion of their application is rapid throughout the Napoleonic empire.

State involvement accompanied/supported by standardization entails identity management as a genuinely social infrastructure. How different states are involved varies widely, though. At one extreme, a state may limit itself to conditions for social dynamics according to a general democratic policy, while at the other extreme the infrastructure for identity management is state-controlled for the purpose of day-to-day control of inhabitants' behaviors. Major infrastructural components are largely invariant, however, which explains why divergent political systems co-exist. Supranational standardization in measuring (read: identification) certainly promotes exchange. However, it also promotes state control. And constraints invariably rule, for only a subset of variety is officially recognized. A bureaucracy cannot differentiate — nobody can, for that matter — beyond the standards it applies for identification.[8]

Culturally, too, security is a matter of equilibrium. From the perspective of an individual citizen, infrastructure will be positively valued when it serves his interests (and with no alternative reasonably

available). On the other hand, infrastructure holds a negative value when the individual citizen views it as an obstacle, threat etc.

This civil 'equilibrium of state' is dynamic. Many states now pursue a service orientation. The citizen is primarily considered a — tax-paying — customer; infrastructure makes for efficient delivery of services. A comprehensive array of identifying registrations (person, address, house, car, etc.) is available. Such information can also be used for different purposes. Does the citizen consent to actual usage? When he is suspected of fraud, asking him for permission hardly seems relevant. But where is set the limit to surveillance? Aren't the constituent aspects of civil equilibrium so interwoven as to make an evaluation too burdensome for the citizen who just wants to get on with his most immediate interests? But then, isn't it precisely the impression of interests ill-served that makes citizens suspicious of their own 'state'? It does not seem to matter whether such an impression is factually supported; the tension occurs from complexity, i.e. a lack of transparency. In defiance, some citizens view the solution in managing their personal identification(s) and the identifications of what they 'own' themselves. However, that has never been an option. Identity management is always a relationship. What should be questioned is one-sidedness as civilly experienced, i.e. a state's formal domination of the relationship with correspondingly biased rules for identification.

Of course it is true that digital information and communication technology allows an increasingly networked form of human life. A knee-jerk response acquired for previous stimuli will therefore not satisfy. Active participation of citizens in government now requires another fundamental effort at social (re)engineering. Security from variety should be balanced with security from standardization/uniformity. The civil demand for variety increases with the distribution of knowledge.[84]

### 3.4 Attention management

A postmodern citizen is more or less safe from physical harm during protracted periods. Cannibalism is nowadays rare, so nobody is going to eat him, for example. Excluding for the moment all kinds of physical abuse, he is nevertheless heavily targeted.[7; 87] A multitude of other actors attempt to engage him in various interactions, increasingly of a commercial nature.[73] In a crowded society, where spending power is limited and competition abounds, an actor therefore shifts energy to getting the attention of another actor in the first place. Specialized attention-getting interactions aim to set up, and maintain, a relational experience. Brands serve efficiency in attention management.[1] Identities for life styles are erected; products are transient properties of the continuing brand. The targeted actor should swiftly gain, and maintain, the impression that his interests are optimally served by continuing the relationship. For precisely that purpose, he is offered — to participate in — ever subsequent

interactions. In exchange for some of his financial resources, of course. The illusion of difference promotes uniformity.[44; 41]

Attention management is natural, as ethological studies demonstrate. Political and commercial institutions, too, have always practiced attention control through identity management (if only by blurring their own identity, ignoring the identity of the 'other,' etcetera). So have individual persons in cultural settings (and to a large extent through their institutions). Adolescence, for example, is a young person's revolt against the institution of parental rule. Parents who completely ignore their child's claims at — attention for his — growing independence frustrate his individual development (and in the process make their own lives miserable, because a child usually doesn't stop claiming, not immediately, anyway). Luckily, the damage is often limited. Usually parents learn to play their new parts, in most cases behind cue but still close and soon enough to accommodate some measure of dynamics of equilibrium. And their child simply grows up. No longer a child, one time or another (s)he 'simply' leaves.

What happens when a person doesn't want to leave? Instead, he wants to stay, but with sufficient space to pursue his own interests. Someone else may (still) control the space, being unwilling to relinquish — a part of — it. Such conflicts of interests have always occurred, with both actors attempting to exploit asymmetries. One actor ignoring another's request for compliance may indeed frustrate the latter actor's development. But then, that particular actor apparently has already developed enough of an identity (also read: motivated individuality) to state a request. In fact, isn't the very difference that such a request involves precisely what constitutes a living being's individuality? This explains why a dictator meets insurgence with radical repression, i.e. murdering opponents and their relatives and friends. Ignoring resistance effectively fuels it. So does repressing resistance, for that matter. A dictator merely gains the time it takes for other people to raise — the courage for — a similar request directed against him (and his regime, of course). As the murdering etc. goes on, a dictator on his part is also requesting compliance. Public executions, concentration camps and so on are all signs, too. A dictators thus deters other persons from offering resistance, forcing them into submission. Once again: $a_n@A_m$.

A state may conveniently label activities as terrorism. An analysis under the heading of identity management may help to clear some of the confusion. Popper's (1902-1994) concept of the open society provides a perspective.[69] It entails that the population can change the government. 'The people' are given the opportunity to do so at set intervals when a free election is held. No physical force is required; the old government leaves, while the new government enters, and so on. The difference resulting from a democratic change in government is usually small, though, as much of the administration remains.

Much in the same vein, Etzioni conceives of the active society, where actors opt

for the uninhibited, authentic, educated expression of an unbounded membership.[27: 13]

What do citizens want when they direct force against their *own* state's institutions, or social processes in general? The first point to establish is whether their target is a so-called open society. Let's suppose it is. They may want to destabilize the current regime. Then, does their interest lie with continuing the open society? Do they want people to vote for them, next time around? If so, are they drawing attention to their political program? Are they actually a political party? Do they properly manage its identity by committing violence? Are they really making a convincing statement for the open society? It seems reasonable to argue, from the perspective of the open society, that is, for a case of severe maladjustment. They are criminals, perhaps medical patients.

It happens, though, that a citizen is unfairly treated. Institutions in an open society cannot repress, but they certainly do ignore. Or make mistakes etc. In mounting frustration, a citizen may escalate his measures for getting attention. By definition, the legal framework sets the limit for what is permissible as civil action. The citizen who crosses it behaves criminally. However, his transgression should also be taken as a request; does the identified institution function as it should?

An open society represents political relativity. Potential change is the measure. Some ideologies are closed in the sense of absolute rule. Violence committed in its pursuit of elimination of political change is dictatorial, and therefore criminal.

At present, large scale violence mainly occurs at what seems an intersection of political systems. One institution applies the label of terrorism in denial of institutionalism for another actor who resorts to violence precisely for the purpose of getting accepted as an institution. Mere acknowledgement of a political identity, however, does not result in halting violence, let alone guarantee a lasting peace. Struggle continues when actors find their interests are not yet given adequate attention by other actors. At the political intersection, a vacuum of legal framework operates. There, identity management lacks a common ground. In its absence, actors continue with interactions to prepare such ground in their own, particular image. The semiotic ennead helps to explain how one and the same actor may display a wide variety of behaviors. He acts situationally.

### 3.5 Contingency management

Crime, terrorism and war provide extreme threats to 'normal' citizens' security. Identity management in open societies requires a broader foundation. I argue that a defining characteristic of a citizen is his dependence on products and services provided to him (including ways to make his living). He is not at all self-sufficient, but dependent. Of course, man never was a solitary animal. In citizenship, he partakes in a variety of chains of production and consumption. Economic parameters cause such chains to stretch; more and more, citizens engage in specialized contributions. On the side of consumption, citizens reap benefits (choice, quality, price). There are also larger risks, though. As

chains become more complex, control of both process and results is getting difficult, sometimes impossible, to achieve.

The vegetable specimen on your dinner plate, for example, may be from a genetically manipulated species, have its growth protected by pesticides and stimulated by fertilizers, its shelf-life extended by yet other chemical treatments, etcetera. Suppose you get ill from eating it, very ill. When more people suffer serious complaints and a medical pattern is established, this particular food chain becomes an official public health issue. Sooner or later, the 'product' is banned, the process chain redesigned, or whatever. Such reactive measures, if they are to be successful, depend of course on both extended and precise identification. Extension means that it must be possible to retrace to chain, including whatever happened under whose responsibility etc. at every step along the way. Precision 'singles out' the vegetables 'behavior' in the food-consumption situation; it should of course also be possible to broaden the investigation to other situations in which the vegetable exhibits identified behavior(s).

Let's assume a system of registration is properly functioning for minimally the food-consumption chain of the type of vegetables I've introduced. And so far, all seems well, i.e. no harmful effects occur from consumption. The very existence of a formal registration may then cause insecurity, or at least have unintended consequences. Variety control increases variety, and so on. Identity fraud entails, in this case, passing a different vegetable for the one that is certified. Such fraud may be committed for a variety of reasons. Bypassing certification should yield greater profit. There doesn't actually have to be anything wrong with the different vegetable. In fact, it might qualify even better for certification than what it substitutes. Then again, it might not and indeed constitute a risk to public health.

The general point for identity management is that a system of registration is always a sign in its own right, too. It was apparently judged necessary to establish trust through certification because some 'items' offered on the market fell short in quality. The identification scheme may very well succeed in eliminating the offerings which originally caused concern. The dilemma consists in irreducibly constructing a basis for misuse of trust, too. However, trust is also what keeps fraud within certain bounds. When fraud undermines trust, or confidence, it effectively destroys the vehicle it requires to function at all. It is no coincidence that fraud is popularly called: confidence game or trick.[97: 223]

### 3.6 Electronically mediated identity management

Like a coin, official identification has two sides. The aim is to enhance security. A consequence is that it may actually raise insecurity. If you can trust keeping your belongings in a locked compartment, it is the key you should now be concerned about to keep safe.





 

Not just the control side, but especially the risk side of identity management enters a new stage with — the use of — electronic media, i.e. digital information and communication technology. Personal access is a good example.

Let's first treat physical access. A citizen may want to enter (or exit) an area which a particular institution controls. Traditionally, a guard — often, euphemistically, called a receptionist — stops him. In most cases, the guard doesn't establish the visitor's identity at all. The visitor is requested to register, but the information remains unchecked. Leaving citizen privacy aside, suppose the guard does check. For that purpose, let's assume the guard has information access — I'm getting ahead of myself, here — to the state registration system containing standardized identifications of citizens. What level of certainty does a check provide? It depends, of course. Suppose that, upon the guard's request, the citizen supplies a person's last name, the name of a town, of a street, and a house number. The state registration system responds to the search with zero, one or more facial pictures of persons. The guard can proceed with identification. If the guard — believes he — can confirm a particular picture as an adequate representation of the person who wants to enter, he has positively 'identified' the citizen.

This procedure can be repeated. There may be areas contained within an area, etcetera. The level of certainty required may be raised with each checkpoint, adding criteria such as "What is the interest behind your visit?" Your answer will likely be checked with the person you — say you — intend to visit.

In many organizations, employees physically enter a restricted area without interference by a human guard. They can pass after an automated check. For example, an employee can open a door by entering a code. Or a card he presents is scanned. And/or a biometric sample (fingerprint etc.) is taken, processed and compared with templates.

When I substitute a nation state for organization, at many airports automated checks are already performed upon — attempts at — entry and exit by citizens. Indeed, the virtual guard controlling a particular state's border even has access to systems of identification registration of several states. Rather than limiting an area for access, such supranational cooperation extends it. Prospects for identity fraud are correspondingly attractive.

Information access is increasingly disengaged from — restrictions for — physical access. An employee doesn't necessarily have to travel to his office desk in the employer's building in order to view, change and/or extinguish information. And with so-called e-government, a citizen can handle transactions without physically having to visit the counterpart government institution, vice versa. How are adequate levels of trust implemented? The final paragraph outlines my view of a possible (near) future.

### 3.7 Open security

Trust does not only correlate with security. The overriding concept is interest.[33: 392] An actor trusts what promotes his interest, i.e. consummates his motives. Therefore, usability is equally correlated with trust. A design issue then becomes balancing usability with security.

I believe the concept of the open society helps to focus trust. An open society secures a climate for non-violent creativity. Any citizen must not only be free to design a policy in line with the basic idea of open society, but also to present it in order to be elected for government and implement it.

How can an open society secure ... essentially itself as it develops? Its main attraction is individual rights. However, it comes with an obligation. An actor has the responsibility of identity. That is, he stands for his participation. It is a matter of democratic government to determine which interactions are potentially of general interest to warrant a third-party memory of participation: $a_m@A_p$. The third party is a particular government institution of the citizen's state.

The still growing density of social differentiation makes the modern distinction between a private and a public domain somewhat outdated, already. It is now more apt to argue for a private and a public aspect to every single interaction. The proportion varies, of course. At one extreme is what still is completely private, at the other what is overtly public.

A sufficiently large public aspect (also read: democratically-up-to-legally determined interest) requires proportional identification of both participating actors and objects otherwise referred to in their interaction. The demand for proportionality means that anonymity must also be safeguarded when deemed appropriate for extending the open society. There is, by the way, nothing against a person — or whatever object, for that matter — applying different identifications. Between interactions of sufficient public interest, though, it should be possible to relate — the use of — different identifications to a single person. A person may have an artist's name etc., but is liable to income tax for all his identifications taken together. Rather than opposing multiple identifications, a state should invest in their management for its democratically allocated tasks. In the meantime, a citizen can more effectively guard his privacy through different identifications where their connection is not allowed.

As private and public sectors integrate, a citizen can use his state-guaranteed identification throughout. The same applies to state-guaranteed object identifications, for example of cadastral plots. The increase in electronically mediated identification must, however, be compensated for and complemented with additional real-life verification. Admission to a hospital, state-funded or otherwise, could qualify. It would mean that the hospital is explicitly co-responsible for maintaining a quality register of personal identifications. For example banks and insurance companies could be given a similar status with respect to verification. An organization/institution would have to 'pay' for failure to comply. Then again, security may not compromise usability. The choice of already 'natural' verification confrontations should benefit acceptance.

The freedom allowed a citizen to entertain different identifications will, in most cases, even promote the general use of the state-guaranteed identification. After all, a single 'key' is convenient. It works when the citizen can trust that records of relational experiences in which he figures are only shared between institutions when such an overview can reasonably be expected to increase security.

More and more interactions will be electronically mediated. At least technically, a single infrastructure, or a network of infrastructures, will be available to carry the information traffic. Metapattern allows for conceptual integration through interdependent identifications.[89; 92; 49] Such potential for open interconnection prioritizes authorization. An actor may have general access to — participation in — some interactions and information, but may require permission for other interactions including specific information. Authorization involves yet another domain of explicit identification. It combines the complexities of identifying actors, (other) objects and process chains with separate activities. The unambiguous solution rests with individual situational behavior as the unit of authorization. For it has been argued that behavior is specific for a particular actor in a particular situation.

An open society, or civil society, as it is also called, democratically determines its risks. Every new government may set a different agenda. I also consider, for example, income redistribution fraud a serious security risk. A part of taxation is simply not spend as it should. Policy suffers while citizens are overtaxed. Trust is undermined. Yes, democracy is especially at a dilemma against absolutist threats, supported by — what never is random — violence. However, the democracy of risk is the risk of democracy. That's it, basically. An open society can only remain 'open' within a characteristic bandwidth of variety and its corresponding vulnerability etc. To try and operate outside such an open bandwidth would expose society to the greater risk, i.e. that of rapid closure. Political closure is easy to step into, but extremely difficult to recover from.

A pervasive, dynamic equilibrium in identity management is an achievement by — participants in a — particular culture. Being socially open and active always demands a self-biased opposition against its 'other.' More regretfully so, it works the other way around, too, as Foucault highlights.[28] A society which sees itself as open will often be in self-denial about its oppression, while a dictatorship should be visible to be effective, i.e. it oppresses an open society … openly (or, as a contragram, the openness of oppression is the oppression of openness).

### 3.8 Identifying relevance

Within any scope, it is impossible to give an exhaustive treatment of identity management and security issues surrounding it. I'm already quite content when, as Russell remarks, albeit in a different context, "[t]he net result is to substitute articulate hesitation for inarticulate certainty."[78: 9] Here, what a semiotics of identity management loses in technical constraint, should be gained in social-political





 

relevance. A wide range of behaviorally relevant phenomena may be included in both historical analysis of, and a design (also read: synthesis) for future identity management.

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*Office*:
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