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Identities of Artefacts

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Abstract: In non-philosophical discourse, "identity" is often used when the specific character of artefacts is described or evaluated. We argue that this usage of "identity" can be explicated as referring to the symbol properties of artefacts as they are conceptualized in the symbol theory of Goodman and Elgin. This explication is backed by an analysis of various uses of "identity". The explicandum clearly differs from the concepts of numerical identity, qualitative identity and essence, but it has a range of similarities with the notion of self-concept used in psychology and practical philosophy. The proposed explication is used to analyse claims about identity-pluralism and identity-conflicts. Firstly, the explication allows us to distinguish various ways how the same artefact can have a plurality of identities. Secondly, more or less sharp conflicts within an identity or between identities of an artefact are distinguished. Thirdly, many phenomena called "identity-conflicts" are only apparently identity-conflicts and can be analysed as involving some other form of tension.

Introduction

Architecture critics, designers and oenologists speak about the identity of buildings, furniture and wines. A train station is praised for having its own identity, which fits its function as well as its location. Some furniture is said to have such a distinct identity that we know it by name. A wine is attributed a strong identity which makes it unique as well as resembling other wines. What such statements deal with could also be described as the "specific character" of the artefacts in question.

Discussions about identity in this sense of specific character are common in non-philosophical contexts, but so far, this concept of identity has hardly ever been discussed in philosophy. However, a philosophical theory of identities of artefacts would be of interest for several reasons. To begin with, "identity" actually plays an important role in some normative discourses about artefacts, but it is often unclear what "identity" exactly means and whether it is more than a fashionable ingredient of jargon. Closer analysis is needed to show whether such discussions address a genuine issue. In this paper, we show that the concept of identity in the sense of specific character can indeed be reconstructed and that, once it is framed more precisely, a range of interesting questions come into focus. Firstly, there is the issue of pluralism and conflict. Can the same artefact have more than one identity? If yes, in what sense? Can there be conflicts between these identities and if yes, in what sense? Secondly, identities are often evaluated, for example, as more or less strong, distinct, individual and

prominent. How can such qualifications be reconstructed? While such issues are more internal to identity theory, other questions concern aesthetics and theories of art. What is, for example, the relation between identity and style? As we will argue, the two notions clearly differ, but their exact relation depends on what account of style one adopts. Furthermore, issues of practical philosophy come into focus, once we acknowledge that identities of artefacts also play an important role with respect to people's self-concept. People use artefacts with a certain identity to express and reinforce a particular understanding of themselves. Such a factor is operative in many everyday decisions, such as what a person wears or what car she buys. This raises such questions as how identities of artefacts relate to self-concepts of people and on what grounds identity-related decisions may be criticized. Finally, the subject is of interest for recently started philosophical debates about artefacts, design and engineering. What, for example, is the relation between an artefact's identity and its functions?

A theory of identities of artefacts must first of all address the question of what is meant by "identity" in the sense of specific character. As we will argue, this notion of identity clearly differs from the concepts of identity discussed in metaphysics; that is, from identity in the sense of sameness (numerical identity, persistence and qualitative identity) and in the sense of essence. However, there are similarities to the notion of identity in the sense of self-concept as it is prominent in psychology and practical philosophy. For this reason, we will speak about the "identity" of artefacts, but nothing substantial hinges on this terminological decision and we do not suggest an underlying link to metaphysics; everything we say could also be framed in terms of "specific character". In this paper, we provide a starting point for a theory of identities of artefacts, by developing an explication of "identity" in symbol-theoretic terms on the basis of the semiotic theory of Goodman and Elgin. We focus on paradigmatic artefacts – on physical objects made or modified by people for some purpose – which includes a large class of works of art. In giving an explication, we follow Carnap's classic method (Carnap 1962, §§ 2–3), which aims at replacing an inexact pre-theoretic concept (the explicandum) with an explicitly introduced and more precise concept (the explicatum) by incorporating it into a theoretical framework. We rely on this method because it is tailored to developing a systematic account for concepts that are currently used in a vague or otherwise unclear way. A more standard approach of conceptual analysis aiming at a definition of "identity" seems illsuited to this situation; even if it could be carried out successfully, definitions that mirror the vagaries of ordinary usage would probably be no suitable basis for developing a fruitful theory of identities of artefacts. In contrast, the method of explication does not give first priority to describing pre-theoretic usage as accurately as possible. It only requires that the explicatum can be used in place of the explicandum in important contexts. An adequate explicatum should above all be more exact and fruitful than the explicandum, and as simple as possible. In a first

Although we adopt Carnap's way of speaking that characterizes explication as a method for replacing concepts, we will not presuppose that concepts are abstract entities as Carnap does (Carnap 1962, pp. 7–8). Rather, we use "concept" for referring to linguistic entities ("terms") together with their rules of use (clearly or turbidly, explicitly specified or

step, the explicandum must be "clarified"; that is, identified as clearly as possible. Since our explicandum-term is ambiguous, one way of using it must be selected, informally characterized and contrasted with other uses of "identity" (Sect. 1). In a second step, the explicatum will be introduced by means of an explicit definition in terms of a Goodmanian symbol theory (Sect. 2).

Whether this explication is successful chiefly depends on how well it can serve as a basis for a systematic treatment of identities of artefacts that contributes to relevant issues as mentioned at the beginning. In this paper, we will focus on the two closely related topics of identity-pluralism and identity-contrasts (Sect. 3). The proposed explication enables us to distinguish various ways how the same artefact can have a plurality of identities: trivially different identities resulting from subsumption under different sortals, identity changes caused by changing objects, and multiple identities in different symbol systems. Hence, speaking of "the identity of an artefact" is a mere façon de parler. We furthermore differentiate inconsistent and incompatible identities from merely contrasting identities and discuss which of these forms of conflicts actually occur. Finally, we show that many phenomena called "identity-conflicts" are only apparently identity-conflicts and can be analysed as involving some other form of tension. An extensive discussion of the other issues as mentioned above lies outside the scope of this paper, but we will briefly comment on at least some points in our discussion of examples (Sect. 1.1 and 2.3).

In the concluding Section 4, we briefly comment on the prospects of extending our explication of "identity" to identities of natural objects and non-paradigmatic artefacts.

1. Clarification of the explicandum: Identity as specific character

As a first step, explicating a concept calls for informally identifying and delineating the intended use of the explicandum-term. We begin with a few examples that introduce the relevant use of "identity" and compare it with related uses of other expressions and other non-technical uses of "identity" (Sect. 1.1). We then briefly discuss the explicandum's range of application (Sect. 1.2) and contrast it with other uses of "identity" in philosophy and psychology (Sect. 1.3). Finally, we pull together the consequences that can be drawn for the introduction of an explicatum (Sect. 1.4). This first step of an explication does neither strive for eliminating vagueness nor for specifying explicit rules for the use of the explicandum term. That will be done subsequently by introducing an explicatum. For the moment, we seek an informal characterization of "identity" that suffices for the practical goal of reaching a shared understanding of how the explicandum is used, at least in paradigmatic cases.

1.1. Introduction of the explicandum

Like many other terms, "identity" occurs in a variety of meanings in actual language use and in many cases it is difficult to determine what it should express. In this paper, we focus on a

implicitly given in usage). We take a neutral stance on the exact nature of such rules (e.g. they may specify the intension of a term or its extension).

specific well-established use that constitutes our explicandum. Examples can be found in a wide range of everyday contexts and in aesthetic criticism. For example, a wine critic writes about a Portuguese wine:

An impressive dry wine with a strong identity, very pure and intense, loaded with beautiful minerally and waxy nuances, some maturity (age), fruit, spices and also richness, perfectly matched by a scintillating freshness and complexity, resembling a very good Riesling with excellent balance.

(http://winescout.info/saofilipebranco-04.htm. 18.9.11)

Whereas this description may suggest that identities are merely bundles of properties, the following quotation describes an identity as characterized by similarities as well as differences to relevant objects:

Today, Zurich's main station is an architectural flagship. Travellers arriving in Zurich know they are not at an airport, or in Lucerne, Chur or Basel. There are many other Swiss stations that have their own identity, symbolise their location and set the tone of their urban surroundings. (Keiser, A. (2008) "Federal Railways Wins Top Heritage Prize."

http://www.swissinfo.ch/eng/Home/Archive/Federal_Railways_wins_top_heritage_prize.html?cid=4562106. 18.9.11)

More often, "identity" is used to emphasize distinctiveness:

(3) A chair can be the most expressive piece of furniture in the office. Some have such a distinct identity that we even know them by name: Mies van der Rohe's Barcelona chair; Marcel Breuer's Chesca chair; and a leather chair named Joe, shaped like a baseball glove, are some examples. (Klein 1982, p. 106)

Sometimes, "character" – qualified as "individual", "distinctive" or "specific" – is used in the same way as "identity" with respect to artefacts (but not for persons):

(4) When we regard the tools produced by man [...] we find that by means of material, form, color and other perceptive qualities, man has been able to give each tool its individual character. [...] There is something aristocratic about an English riding boot. It's a rather odd-looking leather sheath, only faintly reminiscent of the shape of the human leg. It awakens sensations of elegance and luxury – calls to mind prancing thoroughbreds and pink coats. (Rasmussen 1959, pp. 30–31)

In all examples (1)–(4), "identity" and "individual/distinctive/specific character" could be interchanged. We generally use "identity" but sometimes resort to "specific character" when discussing different uses of "identity". Other terms, such as "individuality" and "character" (without further qualification), are occasionally used with a similar meaning in ordinary discourse. However, they must generally be distinguished from our explicandum. "Character" is sometimes used to highlight a feature of an artefact which is only an aspect of its identity:

(5) Small veinlike fissures in the finish enhance the organic fluid character of the vase. (Antonelli 2003, p. 127)

For this reason, we will suggest using "character" as a technical term that refers to certain aspects of an artefact's identity (see Sect. 2.2). "Individuality" emphasizes the uniqueness of an object and is sometimes used in the sense of a unique identity. However, identities are generally not unique. Several objects, for example mass produced artefacts such as Barcelona chairs, can have the same identity. Paradoxical situations can result if people place a premium on owning a mass-produced artefact that has a unique identity. Designers are well accustomed to being faced with the question of how to turn mass-produced artefacts – be it cars, revolvers or water closets – into artefacts with "individual" identities (cf. Barnard 1998, p. 115, Marsh and Collett 1986, pp. 34–35).

For further clarification, we may contrast the explicandum with three different but related ways of using "identity". They all raise issues that need to be addressed once we have introduced an explicatum (cf. Sect. 2.3). First, examples (1)–(4) illustrate a tendency to speak emphatically about identity, using adjectives with a positive connotation, such as "strong" or "distinct". There is even a tendency to think that an object whose identity does not merit such a positive qualification has no identity at all, as (2) suggests. Nonetheless, we stick to unqualified "identity" as our explicandum. In recognizing trivial identities, the suggested explicatum will provide a simple way of dealing with artefacts that seemingly have no identity at all. Qualifications such as "strong" and "distinct" in (1) and (3) require a much more extensive discussion, which lies outside the scope of this paper (but see Baumberger and Brun forthcoming).

Second, as examples (3) and (4) show, identities are sometimes ascribed to a class of objects, such as to chairs of a certain making. For the purpose of our explication, we will treat the ascription to individual objects as basic and subsequently account for the attribution of an identity to a class of objects. In this context, it will prove useful to introduce an additional notion of partial identity.

Third, "identity" is sometimes used as another word for "style":

(6) Prevailing British influences overlaid with responses to newly available timbers formed the distinctive identity of early Tasmanian furniture. (King 2006)

In general, style and identity in the sense of specific character must be distinguished since not all objects in the same style have the same identity. As emphasized in (3), Mies's Barcelona chairs do not have the same identity as Breuer's Chesca chairs. Nevertheless, they are both prime examples of the style of classic modernism, and this clearly seems to be an aspect of their identity. This indicates that being designed in a certain style is part of an object's identity, but in general identity does not reduce to style.

1.2. Range of application: artefacts

Since artefacts constitute the range of application of our explicandum, some remarks on the concept of an artefact are necessary, although we cannot discuss theories of artefacts here.² In what follows, we will deal only with paradigmatic artefacts, or what Hilpinen calls "artefacts in the strict sense". These are "physical objects which have been manufactured for a certain purpose or intentionally modified for a certain purpose" (Hilpinen 1992, p. 58). Examples are tools, furniture, buildings, prepared foods and drinks, paintings, photographs, vehicles, flags and perfumes. This excludes many things, not only natural objects (people, landscapes) but also events (performances, ceremonies, battles), abstract objects, institutions, states, businesses and brands. The restriction to paradigmatic artefacts has the status of a provisional decision which should help to keep the discussion manageable. Once an explication is proposed, we will come back to questions about its range of application (cf. Sect.2.3 and 4).

For present purposes, we may note some consequences of this focus on paradigmatic artefacts. Firstly, together with organizations and businesses, the whole subject of *corporate identity* is excluded. Paradigmatic artefacts do not have a corporate identity, even though they can contribute to the corporate identity of some organization or business. Secondly, works of art are typically artefacts, but there are exceptions such as certain *objets trouvés* (unless one introduces a considerably extended notion of artefact; cf. Dickie 1983). And many works of art are not paradigmatic artefacts, such as pieces of music and plays (they are not physical objects) as well as their performances (being events). Consequently, our explication does not cover all works of art and it includes artefacts that do not count as art. The resulting concept of identity will therefore not simply be part of aesthetics, understood as a theory of the arts, although it will be relevant to aesthetics.

1.3. Other concepts of identity

In philosophy and psychology, "identity" is terminologically used with several meanings differing from our explicandum. Discussing the various distinctions will further contribute to clarifying the explicandum and provide some clues for the subsequent explication.

1.3.1. Numerical identity and qualitative identity

From a grammatical point of view, nominal constructions, such as "the identity of x is ...", are typically used for the concept of identity we are dealing with. Concepts of identity prominent in philosophy are rather expressed using adjective-constructions with "same" and "identical", such as "Mata Hari is identical with Margarete Zelle" or "Alf and Beth ordered the same drink". Quite often, such sentences are ambiguous and philosophical analysis distinguishes between (at least) numerical identity and qualitative identity (Strawson 1959, pp. 33–34). Furthermore, "identity" is often used in debates about persistence of people (the so called problems of "personal identity") or artefacts (e.g. the problem of "Theseus's ship"). Even though a difference in grammatical construction need not indicate a difference in logical form,

² See Hilpinen 1992, Dipert 1993 and Kroes and Meijers 2003.

there are two reasons why specific character cannot be explained straightforwardly in terms of numerical identity or qualitative identity. While the latter two relations are symmetric and reflexive, having a specific character is neither. It is even asymmetric and irreflexive since identities of paradigmatic artefacts are not physical objects and hence not paradigmatic artefacts. Moreover, numerical identity and persistence is more basic than specific character, insofar as ascription of a specific character to an artefact does not constitute but presuppose its numerical identity and persistence.

However, the properties relevant for identity in one of these senses could still be those which constitute identity in the sense of specific character. Such an idea might seem plausible with respect to qualitative identity. What it amounts to depends on what properties count as relevant to qualitative identity. We could assume, for example, that two objects are qualitatively identical only if they share most properties. But this would not guarantee that they have the same specific character. Two servings of a gournet meal may share most properties, but for connoisseurs a subtle difference in composition may causes them to have different identities, whereas for other people it is more likely their minuscule nutritional value that gives both the same specific character. However, since the notion of qualitative identity admits for a wide range of interpretations, we cannot exclude once and for all that there may be a sensible notion of qualitative identity determined by exactly those properties that constitute specific characters. We could even use the equivalence "artefacts x and y are qualitatively identical iff they have the same identities (specific characters)" for explicating the concept of qualitative identity, although this would be a revisionary proposal as it would turn qualitative identity into a situation-dependent relation (cf. Sect. 1.4).

1.3.2. Identity as essence

It may be tempting to link identity as specific character to the notion of essence. That would fit with uses of "identity" well-established in philosophy, such as describing an object's essence as its "fundamental identity" or with claiming that a real definition specifying the essence of an object "results in a proposition which is true in virtue of the identity of the object" (Fine 1994, p. 13). Obviously, it is debateable whether artefacts have essences at all and if so, how such essences should be interpreted. Is it their general "nature"; that is, whatever decides what species (e.g. buildings, cars, tools, toys) they belong to? Or is it their individual "nature"; that is, whatever makes true answers to questions like "What is this particular building, car or toy?"? For clarifying our explicandum, we do not need to go into the details of what may count as an artefact's essence, nor do we need to presuppose that artefacts have essences. It suffices to consider some basic features of essences of artefacts.

On the one hand, there are some parallels between identities and essences of artefacts. First of all, the attribution of both essences and identities is generally phrased in nominal constructions: "x is the essence of y", "x is an identity of y"; in contrast to the adjective-constructions typical for numerical identity and qualitative identity. More importantly, ascribing an essence as well as ascribing an identity amounts to ascribing a set (or "bundle")

of properties. Furthermore, such ascriptions are selective; that is, they involve only some, but not all properties of an object.

On the other hand, identities and essences of artefacts cannot be equated. Identities of artefacts do not comprise just their essential properties. Leaving aside that one may dispute that artefacts have essences, there are two main differences. Firstly, an artefact may have only one essence but it can have multiple identities (cf. Sect. 3).3 Secondly, there is a crucial distinction in modality. Although it is contested what the essential properties of an object are (Fine 1995), it is uncontroversial that an object necessarily has its essential properties. Consequently, it is necessary that an object has the essence it has, whereas it has its identities only contingently. This does not mean that an artefact's identity cannot include properties it has necessarily, but in general, identities include contingent properties. This is true in a counterfactual as well as in a temporal sense. An artefact could have an identity different from those it actually has. It also can acquire or lose an identity as a consequence of changes it undergoes. Through processes of ageing, specific characters of wines change; a building's identity can be changed by modifications such as a newly painted façade.

1.3.3. Identity as self-concept

The concept of identity in application to artefacts has clearly an affinity to a well established use of "identity" in psychology and philosophy which refers to a person's self-concept. In psychology, this usage of "identity" is well-known from classic theories such as Erikson's theory of "identity crisis" (Erikson 1968). It also constitutes a focus of theory and research in contemporary social psychology (cf. Oyserman 2004 for an overview). In practical philosophy, "self-concept" is rarely used but "identity" – often qualified as "practical" (e.g. Korsgaard 1996; 2009) or "narrative" (e.g. Schechtman 1996; 2007) – is quite common, as is "personality" (e.g. Quante 2007). A person's identity in the sense of a self-concept must not only be distinguished from the so-called personal identity in the sense of psychic or physical continuity. It also differs from her experiences of commonalities with other people that are linked to social roles or to membership in social groups, such as being a woman, a mother, an interpreter, a Bob Dylan-fan and so on. These are better termed "role identities".4

Although the notion of self-concept cannot simply be adopted for artefacts, it shares three important features with our explicandum. Firstly, if we ask about the identity in the sense of the self-concept, we always do so from a particular perspective. The identity of a person is at issue, not the identity of a body or a "human animal" (Korsgaard 2009, p. 19). Similarly, we ask about the identity of an artefact as described by a sortal, for example, the identity of a

More exactly, even if it should be possible to attribute two essences to an artefact, one will be more general and be included in the other, more specific one; genus and species are included in individual essences. In general, the corresponding claim for identities is not true.

In psychology, "identity" is sometimes reserved for what we call "role identities" while what we label "identity" is termed "self" (cf. Stets and Burke 2003, p. 132).

statue, a building or a dinner, not a lump of clay, a quarry or an agglomeration of foods. Secondly, the identity of a person is constituted by similarities and differences with other people. It comprises properties common to all humans or to all members of certain groups, as well as properties shared with only a few people or even with nobody else. Empirical research shows that we are striving for an optimal level of both uniqueness and similarity (cf. Brewer 1991). In particular, a person's identity is not just any feature that may be used to identify her; for this purpose, a social security number would be all we need. Likewise, an artefact's identity is constituted by similarities and differences with other artefacts. The identity of Zurich's main station, for example, includes that it is easily recognized as a train station, not just the features distinguishing it from other buildings (cf. 2). Thirdly, it is widely recognized that the identity of a person may change through time (e.g. Rorty and Wong 1993, p. 19), that a person may have multiple identities (e.g. Korsgaard 2009, p. 21) and that there can be conflicts between a person's identities or between different aspects of an identity (e.g. Rorty and Wong 1993, pp. 25, 29; for empirical results on all three points see, e.g., Stets and Burke 2003). Discussions of multiple and conflicting identities in the literature show that they always relate to roles. Analogously, the identity of an artefact may change through time and an artefact may have different and perhaps conflicting identities, even though for different reasons, as we will discuss in Section 3.

On the other hand, there are also disanalogies between identities of artefacts and selfconcepts. To begin with, a person's identity is not just given and ready to be discovered, but rather (self-)ascribed. This point is emphasized in Schechtman's narrative self-constitution view according to which "a person creates his identity by forming an autobiographical narrative – a story of his life" (Schechtman 1996, p. 93). Identities are thus at least partially the result of an activity; that is, the selection of certain features as pertaining to a given person. Identities are attributed by people to artefacts in much the same sense. However, since artefacts are not active in the relevant sense, they cannot ascribe identities to themselves. Further differences result from the fact that artefacts are neither aware of anything nor capable of acting. Typically, a person's self-concept combines two perspectives: how I see myself and how (I think) others see me (Schechtman 1996, p. 95; Tice and Wallace 2003). Artefacts, however, lack a perspective from within. Their identities are attributed to them in some context. Moreover, people use symbols to express their identity (Swann 1983, pp. 37–38). Not being active themselves, artefacts cannot do that, although of course, they can be used as symbols. Finally, it is impossible, or at least extremely implausible, that two people should have exactly the same identity (Oyserman 2004, p. 5; cf. Korsgaard 2009, pp. 19–20). For artefacts, this is not only possible but happens quite often, especially with mass-produced objects such as cars or furniture.

1.4. Consequences for the explication

For the intended explication, several consequences can be drawn from the preceding discussion. We begin with a number of criteria of adequacy. For the required similarity of explicatum and explicandum, examples such as (1)–(6) need to be taken into consideration. It

is not required that the explicatum mirrors exactly our informal use of "identity" with respect to such examples, but overall we expect it to yield identities that reasonably agree with informal judgements as to what identities the relevant artefacts have or do not have.

Additionally, the explicatum is expected to preserve the difference between identities and essences, and to have the structural properties of the relation of having an identity, irreflexivity and asymmetry. Further criteria of adequacy pertain to Carnap's condition of theoretical usefulness, which comprises exactness, fruitfulness and simplicity. The details of what this amounts to need to be discussed in relation to the theory the explicatum is going to be part of and in view of its intended applications. In the present case, however, the "target" theory is not specified in advance but has to be selected or introduced together with the explicatum. For this reason, we can only refer to the possible applications mentioned in the Introduction.

Four points from the discussion in 1.3 can be used as guidelines for selecting an explicatum. (i) Identities are not just discovered but ascribed to objects from a certain perspective. (ii) Several artefacts may have the same identity. (iii) The same artefact may be ascribed multiple, maybe even conflicting, identities in different situations. (iv) If we ascribe an identity to an artefact, we ascribe a set of properties to the artefact which includes some but not all of its properties. These points also have consequences for the logical form of the explicandum. As mentioned in (i), we do not ask about the identity of just "that something" but rather about the identity of a building, a piece of furniture, a tool etc. Consequently, ascriptions of identities need to be relativized to a sortal. Since different identities may be ascribed to the same artefact in different situations (iii), identity-ascription is also relative to a situation. Taken together, we get the following scheme for the explicandum: "x is an identity of an F-artefact y in situation z".

2. Explication: Identity as symbolic properties

Since identities are sets of properties comprising some but not all properties of an artefact, answering the question of what properties constitute an artefact's identity becomes the key for introducing an explicatum. As we have seen in Section 1.3, numerical identity, qualitative identity, essence and self-concept cannot be used as a basis for demarcating the properties relevant to identity. Before we develop and defend a definition of "identity", we should mention the obvious suggestion that specific characters comprise just the prominent properties of an artefact, perhaps more exactly specified as the properties that are prominent in comparison with other properties of the same artefact or in comparison with properties of other objects. However, this cannot be adequate since a specific character needs neither to include all prominent properties nor to exclude all non-prominent ones. A building's identity may include a subtle irregularity in its façade but exclude its size, even though the latter is much more prominent than the former.

The remainder of this paper develops the idea that identities of artefacts can be explicated as their symbolic properties.

2.1. Symbolic properties

We use "symbolic", "symbol" and "symbolize" to refer in a most general way to the fundamental semiotic relation of standing for; there is no connotation of any kind of "special" meaning. In a first approximation, we may say that an identity of an *F*-artefact in a given situation is the set of symbolic properties of the artefact in this situation. But what properties count as symbolic depends on what theory of symbols is used as the framework for such an explication. In this respect, we suggest relying on the symbol theory of Nelson Goodman and Catherine Elgin (Goodman 1976, Elgin 1983). This is an essential part of our proposal. The idea of explicating identities as sets of symbolic properties can be successful only if framed in a theory of symbols that can treat all sorts of artefacts as symbols, including wines, buildings, tools and toys, which are not paradigmatic symbols. This in turn requires not only a sufficiently comprehensive notion of symbol but also more ways of symbolizing than just denotation and depiction. For present purposes, meeting these preconditions is one advantage of the theory of Goodman and Elgin. Additionally, using an elaborated theory of symbols also makes it possible to relate the concept of identity to other concepts already explicated in this theory, such as style.

Before we can present a definition along these lines, we need to explain in more detail what symbolic properties are and this, in turn, requires rehearsing some of the basics of Goodman's and Elgin's theory of symbols (for an overview see Goodman 1984, pp. 55–71; for a detailed reconstruction Baumberger 2010). Goodman takes reference to be the central symbol-theoretic notion subsuming all ways of standing for and he calls a "symbol" anything that refers or at least purports to refer to something. In contrast to other uses of this term, symbols are neither special signs (suggesting, e.g., some "deep" meaning) nor special objects. Every artefact may be used as a symbol, since being a symbol just amounts to being used by somebody for referring to something. Furthermore, nothing is in itself a symbol but only insofar as it is part of a symbol system determining what it refers to.⁵ For the explication of "identity", this has the consequence that identities will be relative to the symbol system operative in a given situation.

The symbolic properties subsume symbolic functions and symbolic characterizations, which we will explain in turn. "Symbolic function" refers to any referential function. Goodman distinguishes various forms of reference, two of which are basic (i.e. undefined), namely denotation and exemplification. Denotation is a symbol's reference to what it applies to, to what constitutes its extension. Every symbol, verbal or non-verbal, that (at least purportedly) denotes is called a "label". A name denotes its bearer, a predicate everything in its extension, a picture what it represents, a score the complying performances. Furthermore, denotation can be literal or metaphorical. In a metaphor, a label is transferred from one realm of denotata to another, sorting it under the guidance of its literal application. "Sun", which literally applies to a celestial body, may metaphorically denote a beloved person; statues of lambs, which literally denote animals, may metaphorically denote Jesus. Some paradigmatic

Hence, our use of "x refers to y" is an abbreviation for "x is used (by someone) at time t in a system S to refer to y"; analogously for "x denotes y" and "x exemplifies y".

artefacts function denotatively. Obviously many pictures do, but other artefacts may denote as well. For example, the TWA-terminal Saarinen designed 1962 for the Kennedy Airport in New York denotes an eagle. Other artefacts count as symbols because they exemplify.

Exemplification is reference from something to a label it is denoted by. However, exemplification cannot be equated with the converse of denotation since a symbol does not exemplify all labels denoting it but only those it refers to (for details see Vermeulen et al. 2009). Symbols that (at least purportedly) exemplify are called "samples". Often it is more convenient to speak about exemplified properties instead of exemplified labels. A chip of paint on a sample card, in its normal use in a colour shop, exemplifies its colour, but not its size; a tone produced by the concert-master before the performance its pitch, not its loudness. The exemplified properties need not be prominent or salient. It is possible, for example, that a certain large building exemplifies a subtle combination of shapes rather than its size. Whether and what an artefact exemplifies depends on the symbol system in use. Determining what is exemplified is often not easy since the slightest nuance can make a difference and symbol systems are often much less standardized as in the case of the colour sample. Like denotation, exemplification can be literal or metaphorical; it is metaphorical if the sample possesses the exemplified property metaphorically rather than literally. The TWA-terminal may exemplify literally *modern*⁶ and *innovative*, but metaphorically *dynamic* and *energetic*.

Besides the elementary forms of reference, denotation and exemplification, there are also complex forms of reference. Such "allusions" are indirect ways of reference running through chains of elementary referential relations. According to a popular interpretation, the TWA-terminal alludes to *flying* and *freedom* by denoting an eagle that exemplifies *flying* and *free*. Altogether, this example shows that all forms of symbolic functions can be relevant to an identity.

Besides symbolic functions, symbolic characterizations (for short, "characterizations") are also included in identities. They classify symbols with respect to their (purported) referents. One reason why characterizations are included is that merely purported reference may also be relevant to an artefact's identity. There are two basic possibilities here, fictional denotation and fictional exemplification. A fictional label, say a figure of Batman at Tussaud's, purports to denote something it cannot in fact denote since it does not exist. According to Goodman, the point of fictional labels is not what they denote (i.e. nothing) but what they are denoted by; more specifically, how they are characterized and, hence, what kinds of symbols they are (Goodman 1976, pp. 22–26).8 Although a wax figure cannot denote Batman, it can still be a Batman-figure and as such it needs to be distinguished from a Superman-figure, which denotes

We use italics to indicate that a word is used to refer to the corresponding property instead of the objects in its extension.

⁷ Strictly speaking, Goodman and Elgin use "allusion" for chains of reference meeting some additional conditions (cf. Goodman 1984, pp. 65–66).

⁸ This use of "kind of symbol" has to be distinguished from other common uses which classify symbols as "verbal symbols", "pictures", "words", "diagrams" and so on.

nothing as well but still is another kind of figure. Characterizing a figure this way involves treating it as part of a denotational scheme; that is, as part of a set of alternative symbols that includes actually denoting symbols, such as figures of politicians, celebrities and criminals. In a similar way, there are fictional samples that merely purport to exemplify without actually doing so (Baumberger 2009, pp. 313–314, pace Goodman 1984, p. 60 and Elgin 1996, p. 197). They may be analysed as part of an exemplificatory scheme; that is, as x-samples that do not exemplify x since they in fact lack property x. Hans Kollhoff's high-rise-building at Potsdamer Platz in Berlin, for example, purports to exemplify brick building, but in fact it does not. Although it is a brick building-sample it is a concrete skeleton construction rather than a brick building.9 In both cases of fictional reference, denotational and exemplificational, the relevant characterizations of a symbol are part of its identity. However, identity-relevant characterizations are not limited to cases of fictional reference. All denoting symbols can be characterized as symbols of a certain kind, since we can always ask as what they denote their referents. In general, a label denotes x as y if it is a y-label denoting x. Daumier's famous caricature depicting King Louis-Philippe as a pear denotes the king, although it is a pearpicture rather than a Louis-Philippe-picture; a simple drawing of a tiger in an encyclopaedia is a tiger-picture and hence denotes tigers as such.

2.2. A Definition of "identity"

We are now in a position to introduce our explicatum by means of a definition. Since we have decided to deal with paradigmatic artefacts only, we use a conditional definition, which leaves open how the concept of identity may be explicated for other objects:

(7) If y is a paradigmatic artefact, then: x is an *identity of* an F-object y in situation $z = \langle \text{time } t, \text{ context } c \rangle$ iff S is the symbol system in z and x is a set of properties consisting of F and all symbolic properties of y according to S in z.¹⁰

An F-object is any object the sortal F applies to. The symbolic properties of y are its symbolic functions and how it is characterized as a symbol. Therefore, an identity of an artefact is a set

Kollhoff's high-rise-building does not only purport to be a brick building but purports to exemplify *brick building* since it is considered to be a built manifesto in the debate between traditionalists and modernists during the 1990's in Berlin (cf. Baumberger 2010, pp. 201–207).

Strictly speaking, the biconditional in (7) is an abbreviation for "x is an identity of y relative to F, S and z iff F is a sortal, S is a symbol system, $z = \langle t, c \rangle$, t is a point of time, c is a context, y is F in z, and x is a set of properties consisting of F and all symbolic properties of y according to S in z".

Properties can be eliminated from (7). Instead we may refer to the set of predicates consisting of "is F" and the symbolic predicates of y according to S in z, which can be explained as the predicates that capture the symbolic functions and characterizations of y according to S in z (e.g. "exemplifies ..." or "is characterized as ...").

which includes, besides F, properties such as *denoting* ... and *being characterized as* ... The reference to a situation in (7) has the function of including those factors that determine which symbol system is in use and which symbolic properties the artefact has in that system. Since there is no way of giving in advance a general and exhaustive specification of these factors, we only distinguish between a point of time and the remaining factors, collectively called a "context" (in contradistinction to an object's surroundings). In particular, this includes what social group and what interests guide the question about identity. For every situation, there will be exactly one symbol system, but the same symbol system may be operative in many different situations. Together with definition (7), this notion of situation ensures that the same F-artefact does not have more than one identity in the same situation.

Since we will also be interested in certain aspects of an artefact's identity, we introduce two additional notions. Every subset of an identity that includes F is a partial identity; every nonempty subset of the symbolic properties included in an identity is a character:¹²

- (8) If y is a paradigmatic artefact, then: x is a *partial identity of* an F-object y in situation z iff there is a w such that w is an identity of the F-object y in z and x is a subset of w and F is an element of x.
- (9) If y is a paradigmatic artefact, then: x is a *character of* an F-object y in situation z iff there is a w such that w is an identity of the F-object y in z and x is a non-empty subset of w and F is not an element of x.

Before discussing examples, we briefly comment on definition (7) and some of its consequences. Firstly, identities are relative to a symbol system and a situation. Secondly, identities are not defined exclusively in symbol-theoretic terms, since they will always contain a sortal F that is determined by the perspective from which we ask about the identity of the artefact in question. Often, an artefact will symbolize (exemplify or allude to) this sortal F, but this need not be the case. The property of being an F is part of an artefact's identity regardless of whether the artefact exemplifies F (or alludes to it) because the similarity to other F-objects is as much part of an identity as are any differences to other (F-)objects. Typically, the sortal F will relate to the artefact's practical function (e.g. "camera") or the way it was produced ("photograph").¹³ The property of being F is a part of an identity even if an artefact purports to exemplify a property incompatible with F. A building, for example, may purport to exemplify

- In this technical sense of "context", the same context can exist at different points in time.
- This technical notion of "character" must be distinguished from Hilpinen's (2009) use of "character".
- If the sortal *F* relates to the artefact's practical function, this has to be its "proper" function; that is, "the function that belongs to the object itself" (Parsons and Carlson 2008, p. 66). Under normal circumstances, it is not acceptable to ask about the identity of an artefact under a sortal description that refers to an "accidental" function. Even if a screwdriver has the "accidental" function of a paint-can opener, its identity includes the property of being a screwdriver.

being a ship. Nevertheless, its identity includes the property of being a building; the tension between this property and the one that is purportedly exemplified is an aspect of its identity. Thirdly, every identity has a trivial part, which is the property of being F presupposed in the question about the identity. The non-trivial part is what is ascribed to the artefact according to the relevant symbol system in the given situation. Furthermore, definition (7) does not presuppose that the artefact in question is a symbol in the system S. If it is not, it will have no symbolic properties in S and consequently its identity will consist in F only. We call that a "trivial" identity:

(10) If y is a paradigmatic artefact, then: x is a trivial identity of an F-object y in situation z iff x is a set with the single element F.

Fourthly, it need not be possible to decide effectively in every case what properties belong to an identity. Determining how an artefact functions symbolically sometimes requires hard work of interpretation and this may even be an open-ended task (the main reasons are syntactically dense symbol systems and relatively replete symbols, which are symptoms of art; cf. Goodman 1976, pp. 252–253; see also note 15 below). These may be drawbacks of our explication, but they do not give rise to decisive objections since the explicatum is still far less vague than the explicandum. Fifthly, (7) permits several artefacts to have the same identity. Finally, there is the question of whether and in what sense exactly definition (7) accounts for multiple and conflicting identities; this will be discussed in Section 3. Altogether, this also shows that definition (7) meets conditions (i)–(iv) from Section 1.4.

2.3. Examples and adequacy of the explication

Some examples will illustrate how symbolic properties constitute identities. A rather extreme case is the TWA-terminal discussed in Section 2.1. Its identity is exceptionally rich because it includes all major types of symbolic functions. On the other end of the spectrum, we have the very common case of artefacts with merely a trivial identity in the situation at hand, such as tools, kitchen utensils, parts of bicycles and blank pieces of paper under most circumstances. A more interesting example is the Portuguese wine mentioned in (1). If we follow the quoted description, its identity first of all consists in being a wine exemplifying a range of properties described as "very pure and intense, loaded with beautiful minerally and waxy nuances [...]". Additionally, there are also relevant allusions, for example to "a very good Riesling with excellent balance", which exemplifies many of the same properties. Whether the properties mentioned are indeed exemplified must be decided with reference to the symbol system which is actually in use in the context from which this example is taken. This is the symbol system oenologists use when they professionally describe wines. When one learns this relatively standardized system by going to wine tastings or consulting wine guides, one learns that a wine refers to some but not all of the labels that apply to it. In this system, a wine may exemplify "astringent", "dry", "fruity", "flowery", "minerally", "waxy", "oily" or "purple", but not "contains alcohol", "liquid", "to my taste" or "did sell poorly in Belgium".

Example (1) is a typical one insofar as non-trivial identities often consist in exemplificational references, together with the allusions they start (4 is a similar example).

What kind of symbol an artefact is is typically relevant in case of denoting symbols and symbols that exemplify fictionally. It is part of the identity of Goya's painting of Ferdinand VII that it is a tyrant-picture; and it is part of the identity of Mies van der Rohe's Chapel at the Illinois Institute of Technology in Chicago that it is a boiler-house-symbol since it purports to exemplify a boiler-house although it is a chapel (cf. Jencks 1977, pp. 15–19).

Further discussion of the examples from Section 1.1 also illustrates applications of the notions of trivial and partial identity and of character. (2) suggests that many train stations have no identity or no identity of their own. This implication can be reconstructed as claiming that many train stations have trivial identities only, consisting in nothing but the property of being a train station. Stating that they do not have "their own" identity underlines that they have not an identity that distinguishes them from other train stations.

Partial identities are useful for analysing ascription of identities which do not directly refer to individual artefacts. Examples (3) and (4) seem to deal with identities of types or classes of objects. The reading in which an identity is ascribed to a type in contrast to the instantiating tokens is not covered by our explicatum since types are abstract and hence not paradigmatic artefacts. However, we can reconstruct the examples as statements that involve classes of objects. Saying that Barcelona chairs have a certain identity can be interpreted as the claim that they have a certain partial identity, leaving open whether some exemplars have additional characteristics which give them a "richer" identity. Normally, such claims need to be interpreted as restricted to, say, chairs of a certain production line or to well produced exemplars.

The concept of character can be used for reconstructing statements in which "character" refers to an aspect of an identity such as in (5). Under certain conditions, there may also be a conceptual link to the notion of style. We have already argued with reference to (6) and (3) that style and identity need to be distinguished. The exact relation between style and identity is a substantial issue which obviously depends as much on the theory of style as on how identity is explicated. However, two points are clear if we accept definition (7). First, identity and style will differ as long as style does not include a sortal F, as it arguably should not. After all, we want to be able to say that two very different artefacts, such as a radio receiver and an inscription, can both be in the same style, say, art deco. Second, if style is explained with reference to symbolic properties, then an object's style will be one of its characters. Specifically, this will be the case if we accept Goodman's definition of style as "those features of the symbolic functioning of a work that are characteristic of author, period, place, or school" (Goodman 1978, p. 35). On the other hand, if style is explained without reference to symbolic properties, an object's style and identity will differ for conceptual reasons.

The examples discussed provide evidence that definition (7) meets the similarity-criterion of explication. This does not require that the explicatum be coextensive or synonymous with the explicandum. Rather, divergences are acceptable as long as the explicatum can be used in place of the explicandum in important cases. With respect to examples such as (1)–(4), the crucial point is: replacing "identity" or "individual/distinctive/specific character" by our explicatum neither excludes properties mentioned as relevant to the identity in question, nor does it include properties that cannot plausibly be accepted as part of an identity. Nonetheless,

our explicatum also diverges from ordinary usage of "identity". In particular, it ascribes identities to all paradigmatic artefacts and hence to many objects that usually are not treated as having an identity. This happens in two ways. Firstly, there are a large number of trivial identities. For example, we would not normally say that a technical artefact such as a snow shovel has the identity of being a snow shovel or of being a tool, if only for the reason that we do not normally ask about the identity of such a tool. Nevertheless, should we care about it at all, it seems reasonable to say that a snow shovel merely has a trivial identity of being a snow shovel. Things are different should the shovel be presented in a shop window or as a work of art in an exhibition. In such cases, it will function as a symbol and consequently have a nontrivial identity. Definition (7) can thus be defended as providing reasonable criteria for deciding in previously unsettled or uninteresting cases. Secondly, according to our explication, all symbols have a non-trivial identity. Any predicate-inscription, for example, will have an identity consisting of being an inscription and denoting the objects in its extension – unless it has further symbolic properties such as a neon light by Bruce Nauman. Again, this seems a reasonable decision for previously unsettled cases.

3. Pluralism and conflicts

While comparing identities of artefacts with self-concepts of persons (Sect. 1.3.3), we noted that an artefact may have different identities in different situations, that there can be conflicts among identities and that identities can change over time. These claims can now be reconstructed in terms of our explication. After distinguishing various ways how the same artefact may have different identities (Sect. 3.1), we analyse different forms of identity-conflicts (Sect. 3.2) and discuss phenomena that are often classified as "conflicts" or "contrasts" of identity even though they are based on some other kind of tension (Sect. 3.3). An analysis of these issues is not only of interest in itself, but also an important basis for tackling further questions about identities. For example, one sense of the claim that an object has a "strong" rather than "weak" identity may be that the object has the same identity rather than different identities in a great variety of situations.

3.1. Different identities

First of all, we need to clarify what is meant by speaking of "the same" and "different" identities. In what follows, we presuppose that two identities are numerically the same just in case they are identical as sets and hence both include the same sortal and the same symbolic properties.¹⁴ Identities that differ with respect to the sortal will be called "trivially different".

If exemplification is taken to refer to labels instead of properties, different criteria of identity for exemplificational functions may be used. For example, two symbols exemplify the same iff they exemplify co-extensive labels. More strict requirements include that the exemplified labels are characterized the same or even that they are replicas of one another. See Goodman 1976, pp. 54–56 for a discussion. Analogous points can be made with respect to allusions and characterizations as kinds of symbols.

Statements about identities changing over time can be interpreted as claiming that an artefact loses an identity and is ascribed another one. For this to happen, it suffices that the object has one symbolic property more or less. This still leaves open the possibility of introducing criteria of continuity that underwrite a difference between an identity that evolves and one that is replaced. As we have already noted, the same *F*-artefact cannot have more than one identity in the same situation.

Nonetheless, there are several ways how the same artefact may be said to have different identities. We distinguish between identity changes, trivially different identities and multiple identities. Identity changes result if the same *F*-artefact has different identities in the same symbol system at different times because the artefact changes or is situated in different surroundings; that is, in different physical settings. (Talking about changing artefacts may be given an endurantist or perdurantist interpretation, as referring to one artefact having different properties at different times or to one artefact having temporal parts (time-slices) with different properties. Cf. Lewis 1986, ch. 4) A drawing, for example, may fade so much that it is no longer a drawing of an arctic hare; a lump of fat placed by Beuys may get rancid and starts to exemplify *revolting*. In the case of buildings, typically the surroundings change as well; New York's St. Patrick's Cathedral is a clear example. Sometimes, only the surroundings change. If the chairs accompanying a Louis XV table get replaced by Chesca chairs, the table's identity may change as well. All these forms of identity changes are simply a consequence of artefacts having a history relevant to their identity.

Asking the unspecific question "What is the identity of this artefact?" gives rise to another but trivial way of speaking about a plurality of identities. Since that question does not refer to the artefact under a sortal description, it has different answers depending on the perspective one chooses to adopt in dealing with the object at hand. We will get trivially different identities as answers, which differ already with respect to the sortal they include. Because every artefact may be subsumed under a range of sortal terms, every artefact has a range of trivially different identities.

More interesting are cases of multiple identities, which result if the same object has different identities in different situations because different symbol systems are operative. In other words, there are multiple answers to the question "What is the identity of this *F*-artefact?" since it leaves open what symbol system is relevant to giving an answer. This in turn depends on the situation in which the question is asked. We speak of synchronically different identities if different symbol systems are simultaneously in use in different contexts. Neuschwanstein castle, for example, may exemplify *kitsch* and *pretentious* for the architecture critic, but *romantic* and *majestic* for the tourist. Diachronically different identities result if

Here we presuppose criteria of identity for symbol systems that decide between two different cases of "newly" used symbols. Either a symbol is used in accordance with the symbol system at hand although it has not been used this way so far, or its "new" use constitutes a new symbol system. Specifying such criteria is not trivial, but it is a problem that is in no way specific to Goodman's theory.

different symbol systems are used in the same context at different times. Since the symbol system relevant to typographical design has changed, the same inscription in a dot matrix printer font does not exemplify *progressive* anymore but rather *nostalgic*. Volkswagen's "people's car" could only be introduced successfully in the United States in the fifties, when it was advertised as the "Beetle" with different exemplifications.

In principle, there is a fourth way how an artefact may have more than one identity. In such cases, it has different symbolic properties in different situations although neither the symbol system nor the artefact nor its surroundings change. Because plausible examples are virtually restricted to certain ambiguous inscriptions, such as "CLOSED TODAY", we will presuppose in the following discussion that such cases are excluded.

Such pluralistic consequences of our explication do not amount to an unambitious relativism. For one thing, identity-ascriptions can, of course, be wrong. Perhaps the artefact cannot be subsumed under the sortal; or it does not have all the symbolic properties in the symbol system at hand; or a symbol system inappropriate in the relevant situation is used. Furthermore, that an artefact has different identities does not automatically mean that they differ in important or interesting ways, and even less that they must conflict.

3.2. Conflicting identities

Plainly, the same object may be ascribed identities that are clearly different yet not conflicting. A car can exemplify *safe* and *prestigious* for its owner but *expensive* and *environmentally unfriendly* in a brochure of the eco-advice centre. Still, it may easily be that the owner and the eco-advice centre concur that the car exemplifies all four properties simultaneously. Should the car also exemplify *environmentally friendly* according to its owner, there would be a conflict between the two identities; but, of course, we would then suspect that one of the identity-ascriptions is just wrong. For a more detailed analysis of identity-conflicts, several issues need to be addressed. In this section, we distinguish between more or less sharp conflicts and how they might (not) be brought about by different aspects of identities. Section 3.3 will then deal with explaining so called "conflicts" that are only apparently conflicts of identity.

In its most sharp form, identity-conflicts involve inconsistent sets of properties:

- (11) A set of properties $\{x_1 \dots x_n\}$ is inconsistent iff it is impossible that there is an object having all properties $x_1 \dots x_n$ simultaneously.
- (12) An identity x of an object y is inconsistent iff y having the identity x implies that y has a set of inconsistent properties.

Inconsistent identities as defined in (12) are impossible. Since no object can have a set of inconsistent properties at any given time, we would reject a symbol system as inconsistent if it should imply such an inconsistency. More interesting are incompatible identities of the same object:

(13) The identities $x_1 \dots x_n$ $(n \ge 2)$ of an object y are incompatible iff y having the identities $x_1 \dots x_n$ implies that y has a set of inconsistent properties.

Different versions of inconsistency and incompatibility can be distinguished according to whether the (im)possibility has conceptual or factual reasons. For example, should there be two identities implying that an object is environmentally friendly and environmentally unfriendly, their incompatibility would be conceptual. The combination of *environmentally friendly* and *safe* with *vintage car* is inconsistent for factual reasons.

Still, there is the question of whether and under what circumstances cases of incompatible identities actually occur. For the same reasons that rule out inconsistent identities, it is impossible that trivially different identities should be incompatible exclusively because the same object is subsumed under different sortals (without changing symbolic properties). But different sortals may well combine with other sources of incompatibility. Identity changes resulting from changing objects or surroundings can result in incompatible identities. While a blinking neon light may alternately denote something and nothing, no object can simultaneously have the properties of denoting and not denoting. Similar changes are possible with other symbolic properties. (For perdurantists, the endurantist description of "changing objects" can be reformulated as claiming that the same object can have time-slices with incompatible identities.) Finally, there is the question of whether multiple identities can be responsible for incompatible identities; that is, can an object have incompatible identities in different symbol systems even if the object and its surrounding do not change? For this to be possible, we need to accept that there can be inconsistencies between property-ascriptions in different symbol systems. Although this seems impossible because the same object simply cannot have inconsistent properties, some relativists insist on the possibility of such conflicts (as discussed in the debate about starmaking; cf. McCormick 1996).

Apart from incompatibility, there are also weaker forms of conflict, which we call "contrasts". These are cases in which it is more or less implausible that there should be an artefact having all properties in question. A building that purports to be a ship and hence is characterized as a ship-symbol, is a candidate for a mildly contrasting identity. Contrasts can occur within one identity or between several identities:

- (14) A set of properties $\{x_1 \dots x_n\}$ is contrasting iff it is implausible that there is an object having all properties $x_1 \dots x_n$ simultaneously.
- (15) The identities $x_1 \dots x_n$ ($n \ge 1$) of an object y are contrasting iff y having the identities $x_1 \dots x_n$ implies that y has a set of contrasting properties.

How can contrasting identities occur? In cases of trivially different identities, contrasting sortals may suffice for the associated identities to contrast. Examples are certain multifunctional artefacts with trivial identities, such as a mains tester, which is a measuring device as well as a screwdriver. In more interesting cases, symbolic properties are relevant to identity-contrasts. Changing identities can be a source of contrasting identities, since they can be responsible even for incompatible identities. If we focus on synchronically contrasting identities, there are two cases to consider, conflicts within one identity and multiple identities in which different symbol systems are operative at the same time. Which kinds of symbolic

properties may cause such contrasts?¹⁶ Exemplification often plays a crucial role. If *La Défense* exemplifies *greatness* for its initiators, but *megalomania* for architecture critics, then this implies that the building simultaneously instantiates *greatness* and *megalomania*. Insofar as these are contrasting properties, the corresponding identities contrast.¹⁷ Similarly within one identity, different exemplifications may imply that an object has contrasting properties. Chefs often strive to develop novel recipes that exemplify contrasting properties and end up with dishes like tomato sorbet.

Things are different with denotation. Denotations in different symbol systems alone cannot be responsible for contrasting identities. Although a symbol may denote completely different things in different symbol systems, this does not constitute a contrast since almost nothing about the properties of a symbol follows from the fact that it denotes. 18 This leaves us with the question whether there might be contrasting identities due to diverging denotations in the same symbol system. The most promising candidates are reversible figures like the duck-rabbit picture. According to Scheffler, diverging denotations are not the heart of the matter in such cases, but rather that an object admits of contrasting characterizations. The same drawing is a rabbit-picture as well as a duck-picture (Scheffler 1997, pp. 57–62). There is a contrast between the two characterizations because, given no further information, it is implausible that there is an object which is a rabbit-picture and a duck-picture simultaneously. Hence, the duck-rabbit is an example of a contrasting identity that does not relate to the symbolic functions of an artefact but to the question of what kind of symbol it is. The crucial point about the duck-rabbit is precisely that it is nevertheless not contradictory to characterize it as a rabbit-picture and as a duck-picture. A similar analysis can be given, if characterizations do not contrast with one another but with exemplified properties (a wristwatch may be a luxurysymbol yet exemplify *cheap imitation*), with denotative function (a pear-picture of a king) or with the sortal included in the artefact's identity (a piece of scenery that purports to exemplify

In what follows, we focus on elementary symbolic functions and characterizations and do not discuss all their combinations (e.g. in allusions), which can be analysed in terms of elementary reference.

If exemplification is taken to refer to labels instead of properties, the example becomes: The building *La Défense* has the properties of being a building, of exemplifying the label "great" (in the symbol system of its initiators) and of exemplifying the label "megalomaniac" (in the symbol system of architecture critics). This implies that *La Défense* is a building, that it belongs to the extension of "great" (in the symbol system of its initiators) and that it belongs to the extension of "megalomaniac" (in the symbol system of architecture critics). Whether this is a contrast depends on whether it is plausible that the intersection of the two extensions is not empty.

Exceptions are properties like being a symbol, having an extension or, for English words, being English or being spelled in the Roman alphabet. As a consequence, denotation is compatible with almost any but not with all exemplifications. A denoting object cannot exemplify *meaningless* and a Greek word cannot exemplify *barbarous*.

being a spacecraft). In all these cases, no inconsistency or incompatibility will result, because characterizations do not determine symbolic functions.

3.3. Apparent conflicts

As the preceding discussion shows, there are surprisingly few possibilities for incompatible and contrasting identities, especially in relation to the often diagnosed conflicts between and within identities. Many cases of apparently conflicting identities do not imply that the artefact in question has inconsistent or contrasting properties, even though there is some other kind of tension, which calls for an explanation. In what follows, we analyse various ways how symbolic properties may be involved in creating the impression of conflict.

Often, so called "contradictory" identities involve allusions; specifically, diverging chains of reference starting from the same object. Typical are artefacts exemplifying two properties that are starting points for two chains of reference leading to properties no object can simultaneously instantiate or to non-intersecting classes of objects. Rob Krier's postmodern block of flats at Ritterstraße in Berlin alludes to council houses (e.g. Karl-Marx-Hof in Vienna) and to modern villas (e.g. early villas by Le Corbusier). There is a tension here since no council house is a modern villa, but no identity-conflict results. For the allusions do not imply that Krier's block is a council house or a modern villa. Neither does the incompatibility of being a council house and being a modern villa imply that allusions to council houses contrast with allusions to modern villas. This is different with symbolic characterizations. That no duck is a rabbit suffices to qualify duck-pictures and rabbit-pictures as contrasting.

Most often, exemplification is at the heart of apparent conflicts. If two exemplified properties seem to be incompatible, one of the exemplifications may be merely fictional. The fake Rolex purports to exemplify *expensive* but exemplifies *cheap*. Or there is a tension between a metaphorically exemplified property and a property the artefact literally has. A building may metaphorically exemplify *light* even though it is heavy. Another possibility is that different parts of an artefact exemplify incompatible properties, but the artefact as a whole does not. If the nave of a cathedral exemplifies *Romanesque*, the aisle *Gothic* and the altars *Baroque*, the cathedral as a whole exemplifies neither *Romanesque*, nor *Gothic* or *Baroque* but rather *mess of styles*.

Many interesting instances of apparently conflicting identities call for an analysis that relativizes the seemingly conflicting properties to different functions of the relevant artefact. There is an analogy here to identities of persons. In psychology and practical philosophy, examples of "multiple identities" and "identity-conflicts" are often discussed. Closer analysis of those examples shows that they hinge on ascribing identities to people not just as people but with respect to roles they play or social groups they are members of ("role identity", cf. 1.3.3). Consequently, apparently resulting conflicts can be resolved by introducing an explicit reference to roles. One way of doing so interprets the apparent conflict as a tension between role identities. In this sense, we say that a person has, for example, one identity as a teacher and another as a father, one including *strict*, the other *liberal*. Alternatively, roles also can be integrated into properties relevant to identity. The preceding example then boils down to the

claim that the same person is a strict teacher and a liberal father. This analysis better preserves the original impression of there being a conflict while still making clear that the conflict is merely apparent.

For artefacts, analogous points can be made about functions, for example, aesthetic, practical or economic functions. Analogous to role identity, there are two ways of resolving apparent conflicts by appeal to functions. One integrates the artefact's function in the perspective from which we ask about the identity. In other words, the function is explicitly included in the sortal. Instead of ascribing an identity to the Church of St. Paul in Frankfurt as a building, one may say that as a place of worship it exemplifies spacious but as a parliamentary building cramped. This approach traces the tension between the two identities to their being trivially different, indicating that they answer different questions. Generally, the second strategy is more attractive. It integrates functions into properties exemplified. The identity of the Church of St. Paul as a building includes that it exemplifies spacious place of worship as well as cramped parliamentary building. This version is preferable if the "full" identity of an artefact is at issue, not merely one of its identities with respect to a specific function. Furthermore, this strategy also makes apparent that claims about allegedly conflicting identities are often based on ambiguities. For the numismatic enthusiast, an old coin may simultaneously exemplify of no (currency) value and of highest (numismatic) value without inconsistency.

4. Concluding remarks on range of application

The question of whether our explication of "identity" adequately covers a proposed range of application can be subdivided into three issues. Does it make sense to apply the concept of identity to everything included in this range of application? Ascribing an identity should neither be absurd nor should the concept support trivial claims only. Secondly, can the concept of identity be used within the proposed range of application in ways which are similar enough to an established use of "identity" or alternative expressions (if there is such a use)? Thirdly and most importantly, does the concept of identity prove fruitful when applied to objects in the proposed range of application?

We provisionally restricted our explication of "identity" to paradigmatic artefacts. As we argued in Section 2.3, our explication in fact covers all paradigmatic artefacts. They are all ascribed at least a trivial identity and since they can all be used as symbols, there is no kind of paradigmatic artefacts which could, as a matter of principle, have only trivial identities. We also argued that the proposed explication meets the similarity condition for the discussed examples. The question remains whether our explication is fruitful when applied in different discourses about various kinds of paradigmatic artefacts. However, this calls for more specific investigations into potential applications of the proposed concept of identity (see, e.g. Baumberger and Brun forthcoming). One reason why such studies prove challenging is that research into symbol systems based on Goodman's approach has often focused on systems used in aesthetic discourse. While Elgin (1983) and Scheffler (1997) investigated discourses in

science, mathematics, ethics, play and ritual, not much attention has so far been given to situations in which practical functions of artefacts are in focus.

On the other hand we must also briefly look at the prospects of extending our explication to identities of other objects. Removing the restriction to paradigmatic artefacts does not turn definition (7) into manifest nonsense, but raises the questions whether the resulting extension would still meet the similarity requirement and whether it would be fruitful. Again, this calls for more detailed studies, but some general points seem to permit a preliminary consideration. Most unproblematically, our explication could be extended to cover certain natural objects. Especially landscapes (regions, islands, valleys and so on) are often ascribed an identity in aesthetic, touristic, ecological, economic and other contexts. Such ascriptions seem to function in much the same way as they do for paradigmatic artefacts. Also some extensions to nonparadigmatic artefacts, in particular to events and abstract objects, seem promising. Brands, for example, are often said to have identities in a sense that closely parallels the way we speak about specific characters of paradigmatic artefacts. Artworks like pieces of music or theatre, as well as their performances, are rarely ascribed identities in ordinary and aesthetic discourse. Including them in our explication would therefore constitute an extension that may be justified by its theoretical benefits. For example, the notions of identity and character may complement the concept of an artwork's style in a fruitful way. Interesting problems would also come into focus. For instance, the relation between a work's identity and the identities of its performances would need to be discussed against the backdrop of specific accounts of the work-instance relation (such as class-member or type-token).

Other extensions may prove more difficult. Specifically, persons, organizations and institutions raise the question of how the differences mentioned in Section 1.3.3 may be accounted for. Most prominently, a perspective from within plays a special role in ascribing identities to persons and institutions, as they take an active part in shaping their identities. We must leave open here whether and how exactly people and institutions may be covered in a symbol-theoretic account of identity ascriptions. However, it seems plausible that the basic definitions in our discussion of incompatible and contrasting identities can be used for persons as well.

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