

Natural Classes in Brentano's Psychology

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Abstract: This article argues that Brentano's classification of mental phenomena is best understood against the background of the theories of natural classification held by Auguste Comte and John Stuart Mill. Section 1 offers a reconstruction of Brentano's two-premise argument for his tripartite classification. Section 2 gives a brief overview of the reception and historical background of the classification project. Section 3 addresses the question as to why a classification of mental phenomena is needed at all and traces the answer back to Mill's view that psychological laws are class-specific. Sections 4 and 5 connect the second premise of Brentano's argument to Comte's principle of comparative likeness and Mill's insistence that class membership is determined by the possession of common characteristics. And section 6 briefly discusses the evidence Brentano provides for the first premise.

Introduction

This article addresses Franz Brentano's project of dividing the overall field of phenomena into "natural classes." Its main focus is on the *Psychology from an Empirical Standpoint* (1874; hereafter PES), five chapters of which have been reissued with supplementary remarks in 1911 under the title *Classification of mental phenomena*.¹ The key idea behind the classification project is that all phenomena are to be arranged into non-arbitrary groups or classes according to genus-species relations. In PES the classification project is limited to the identification of the most general classes. It centers around a two-step division. First, all phenomena or "data of consciousness" in the broadest sense of the term are divided "into two great classes—the class of physical and the class of mental phenomena" (Brentano 1995b, 77). This division is the heart of Brentano's so-called *phenomenal dualism* (Dewalque and Seron 2015; Dewalque forthcoming). Next, mental phenomena, in turn, are divided into three "fundamental classes," namely, the class of presentations, that of judgements, and that of "love-and-hate" phenomena. Accordingly, presentation, judgement, and love-and-hate may be considered the three highest *mental species*.²

Brentano's classification project raises a number of interesting issues. My main concern in what follows will be with his classification of mental phenomena, although I shall suggest that his phenomenal dualism is based on roughly the same principles. I shall argue that those principles may be traced back to the theories of natural classification held by Auguste Comte and John Stuart Mill. My plan is as follows. Section 1 offers a reconstruction of Brentano's two-premise argument for his tripartite classification. Section 2 gives a brief overview of the reception and historical background of the classification project. Section 3 addresses the question as to why a classification of mental phenomena is needed at all and traces the answer back to Mill's view that psychological laws are class-specific. Section 4 and 5 connect the second premise of Brentano's argument to Comte's principle of comparative likeness and Mill's insistence that class membership is determined by the possession of common characteristics. And section 6 briefly discusses the evidence Brentano provides for the first premise.

1. Brentano's Classification of Mental Phenomena

In PES Brentano famously argues that the most adequate classification of mental phenomena is into presentations, judgements, and love-and-hate phenomena. As names for mental species, these terms have a technical meaning. Brentano uses the notion of "judgement" whenever something is acknowledged as correct or rejected as incorrect. He uses the notion of "love" (respectively, "hate") whenever one feels attracted to (respectively, repelled by) something. Love-and-hate phenomena have also been called phenomena of interest (see, e.g., Marty 2011, 16). They encompass cases as different as feeling pleasure/pain, longing for something, desiring, wanting, and the like. Finally, Brentano uses the notion of "presentation" (*Vorstellung*) whenever something "appears" to the subject in the broadest sense of the term or is merely "given in consciousness" without there being any judgemental or emotional attitude involved (Brentano 1995b, 81, 198, 1956, 32). In other words, everything one is aware of may be said to be presented in Brentano's sense.

This tripartite classification shows a number of interesting characteristics. To begin with, it may be said to be *purely psychological*, in the sense that it is based on (what Brentano takes to be) intrinsic features of mental phenomena rather than extrinsic factors. Now in PES Brentano holds that each type of mental phenomenon has its own, intrinsic way of being intentionally related to something. One way of capturing this idea is to say that, while all mental phenomena are intentional, each fundamental class of mental phenomena is characterized by an "entirely new" mode of intentionality (see, e.g., Brentano 1995b, 201, etc.). To give but a trivial example, suppose you think of your favourite ice cream flavour, which happens to be Raspberry Ripple, and then come to *judge that* Raspberry Ripple is your favourite ice cream flavour. Brentano would say that, when moving from *thinking of* (understood as a nominal and non-committal attitude) to *judging that* (which is committal), you experience an entirely new attitude towards the content of your mental act, to the effect that your

favourite ice cream flavour is not only presented but judged about.³ By contrast with presentations, judgements are committal attitudes. Now an analogous change of intentional attitude occurs, Brentano would go on, when you does not only judge that Raspberry Ripple is your favourite ice cream flavour but also feels an interest for it and desire to eat it. In respect to presentation and judgement, interest is an entirely new way of being intentionally related to something. Feeling an interest for something is committal, too, but not in the same sense as judging: It is a different *attitude* altogether. In sum, Brentano's classification is attitudinal. It is a classification of "attitude types." As George Stout aptly remarks, "differences in the nature of the object are from this point of view irrelevant. Only the attitude or posture of consciousness towards objects is to be taken into account" (Stout 1896, 1:40).

A second interesting aspect of Brentano's classification is that his three classes are *ordered* in virtue of one-sided dependence relations obtaining between the related phenomena. Presentations somehow underlie all mental phenomena, while judgements presuppose presentations and interests presuppose presentations and judgements. True, in 1874, Brentano holds the view that emotions or interests are all-pervading in human mental life. Presentations, most of the time if not always, arouse a judgemental and emotional response; they are only a "part" of more complicated mental phenomena.⁴ Still, Brentano would argue, it is not impossible for you to have a presentation of a Raspberry Ripple ice cream without judging anything about it, whereas it is impossible for you to judge that Raspberry Ripple is your favourite ice cream flavour without thinking of it or having a presentation of it. By analogy, while it is not impossible to judge that something is the case without experiencing any interest or emotion, it is impossible to experience an interest for something without judging that something is the case.⁵

A third aspect of Brentano's classification is that it is conceived of as being *complete*. However lush one's mental life may be, Brentano argues that, as far as modes of intentionality are concerned, all mental phenomena may be accounted for in terms of presentations, judgements, interests, and combinations thereof. Admittedly, some further distinctions are fairly important, too. Think, for example, of the distinctions between affirmative and negative judgements, self-evident and blind judgements, direct and oblique presentations, love and preference, etc. However, as far as such distinctions correspond to subspecies of the above-mentioned mental species, Brentano takes them to be "non-fundamental" (see Kriegel 2017, 100–101). The reason why presentations, judgements, and interests exhaust the number of fundamental classes is that mental phenomena, in Brentano's view, exhibit "*no more and no less than a threefold fundamental difference in their reference to a content*" (Brentano 1995b, 264; my emphasis).

I take it that Brentano's major argument for his tripartite classification may be reconstructed as follows:

P1 There are three and only three fundamentally distinct intentional modes, namely (i) presentational, (ii) judgemental, and (iii) attractive or repulsive.

P2 There are as many fundamental classes of mental phenomena as fundamentally distinct intentional modes.

Therefore,

C there are three and only three fundamental classes of mental phenomena, namely (i) presentations, (ii) judgements, and (iii) interests.

As Kriegel notices (Kriegel 2017, 100), the argument is valid. In the next sections I want to examine in more detail the kind of support Brentano provides for P1 and P2. But before doing that, it may be helpful to say a word about the reception and historical background of Brentano's classification project.

2. Reception and Historical Background

Whereas Brentano's so-called intentionality thesis attracted a great deal of attention among 20th-century philosophers, comparatively little has been said about his tripartite classification. The fact is, the classification project has been more or less relegated in the background of the Brentano reception and widely neglected even by Brentano scholars, with a few exceptions (Srzednicki 1965; Tassone 2012; Kriegel 2018). One reason it is so probably is that the classification project soon proved to be one of the most controversial aspects of Brentano's philosophical programme.

First of all, Brentano's tripartite classification generated a series of disputes within his school. While most of Brentano's students agreed with P2, almost all of them, with the notable exception of Anton Marty (Marty 1906; 1908, 242; 2011, 16 ff.), disagreed with P1 and departed from Brentano's tripartite classification in one way or another. The most striking disagreement certainly comes from Alexius Meinong, who replaced Brentano's tripartite division by a twofold division into cognitive and emotional phenomena, separated presentations and thoughts as two subclasses of cognitive phenomena, and introduced assumptions as a subclass of thoughts on a par with judgements.⁶ This alternative view is not isolated, though. Carl Stumpf, for example, adopted a classification which in fact is not so different from Meinong's (see Stumpf 1928, viii), and Edmund Husserl also departed from Brentano's classification with his theory of "objectifying acts" (see, especially, Husserl 2002, 102 ff.). Perhaps more significantly, Brentano himself did not regard his tripartite classification as beyond improvement and sometimes challenged P1 in favour of a twofold division of mental phenomena, arguing for the unification of presentations and judgements into a single class.⁷ I won't say more about those alternative classifications. Suffice it to say that the existence of such

disagreements seems to undermine Brentano's overall ambition, which was to "establish a single unified science of psychology (*one* unified psychology) in place of the many psychologies" (Brentano 1995b, xxviii).⁸

Next, it is probably not incorrect to say that the classification project itself has been more or less abandoned in the subsequent phenomenological tradition. Not only has P2 been rejected by Husserl, who argued that an exhaustive classification of our "lived experiences" (*Erlebnisse*) should accommodate non-intentional mental states as well, like sensations and so-called *Gefühlsempfindungen*.⁹ But moreover, one chief difference between Brentano and the early Husserl plausibly is that the former, but not the latter, conceives of description as inseparable from classification. In the first edition of the *Logical Investigations*, Husserl clearly distanciates himself from Brentano's classification project. Interestingly, he keeps on defending the view that there are different species and subspecies of intentional phenomena. Yet, whether those mental species must be organized into multi-levelled genus-species relations, is a question Husserl clearly wants to let open at the outset (Husserl 1970, 96). Similarly, in his 1905 course on judgement, Husserl argues that Brentano's theory of fundamental classes, albeit pioneering, is oversimplifying and eventually fails to "do justice to the richness of the phenomena" (Husserl 2002, 4–5). All in all, the very idea of organising mental phenomena into genus-species relations, and to "reduce" them to some "basic types" (Twardowski 1999, 65), has been seen by phenomenologists like Adolf Reinach as an unwarranted application of the method of the natural sciences in the field of pure phenomenology (Reinach 1989, 534), hence as a reprehensible form of *naturalism*.¹⁰

Finally, on a more general note, it is common knowledge that theories of natural classification have been met with strong suspicion in 20th-century philosophy (see Wilkins and Ebach 2014, 28 ff.). After the various criticisms raised by Quine, Goodman, and others, the overarching opinion among contemporary philosophers has it that classifying is a theory-dependent activity, so that the apparent uniformity we see in nature actually "belongs to a world of our own making" (Goodman 1978, 10). Simultaneously, the acknowledgement of similarity relations, which (as we shall see) was at the basis of the theories of natural classification, has been seen more as a matter of convenience than a matter of observation. The key idea, again, was that similarity is in our thoughts and not in nature, to the effect that any object might be considered similar to any other in some respect, and dissimilar in some other. It was not until recently that the notions of similarity and natural classification knew a relative revival, and were defended against so-called Quine-Goodman objections (see, e.g., Decock and Douven 2011; Wilkins and Ebach 2014).

The situation, however, was completely different in 19th-century philosophy. The fact is, natural classification was a hot topic at the time Brentano wrote PES and elaborated on his subsequent views on descriptive psychology. Not only was it central to the then-burgeoning methodological reflexions

of zoologists and botanists. But it was also addressed by philosophers of science, especially philosophers of the positivist tradition like Auguste Comte and John Stuart Mill. Comte addressed the problem of classification very briefly in the first volume of his *Cours de philosophie positive* (1830) before describing in a more detailed fashion the intellectual procedures underlying botanical and zoological classifications in the third volume (1838). John Stuart Mill began reading Comte's *Cours de philosophie positive* in 1838. In the fourth Book of his *System of Logic* (1843, hereafter *System*), whose first draft dates back to the fall of 1838, he praised Comte's view of classification as "the most complete with which [he was] acquainted" (*System*, IV.7.1; Mill 1974, 713 fn.) and elaborated on his own theory of natural classification, which expands upon Comte's.

Furthermore, at about the same time, the topic of natural classification has been subject to in-depth considerations in William Whewell's 1840 book, *Philosophy of the Inductive Sciences*, which belongs to the tradition of Francis Bacon.¹¹ The third, expanded edition was published in 1858 and came out in three parts entitled *History of Scientific Ideas*, *Novum Organon Renovatum*, and *On the Philosophy of Discovery*. The "method of natural classification" is most extensively addressed in the second part, in which Whewell mainly draws on the botanical classifications developed by Jussieu, Candolle, and Linné, among others.¹² Making a clear-cut distinction between the descriptive and explanatory aspects of any inductive science, Whewell maintains that the descriptive or "phenomenological" part of each science is classificatory: "*Phenomenology requires classification*. The Phenomenal portions of each science imply Classification, for no description of a large and varied mass of phenomena can be useful or intelligible without classification" (Whewell 1847, 1:645, 1858a, 2:265).

It is my opinion that the historical context I just outlined is of tremendous importance when it comes to gain an adequate understanding of Brentano's classification project. Comte and Mill are known for having played a crucial role in the mutation of Brentano's own views about psychology in the late 1860s and early 1870s. As for Whewell, whose name is only mentioned once in PES, his distinction between a descriptive and an explanatory branch in empirical sciences arguably has been one of the main sources of Brentano's concept of description (Hedwig 1988; see also Spiegelberg 1960, 1:9). In what follows I shall establish some important connections between Brentano's classification project and the theories of natural classification held by Comte and Mill.

3. Class-Specific Laws

The business of this section is to highlight the main motivation behind Brentano's classification project. Given the controversial character of the latter, the question is all the more pressing: Why, exactly, is a classification of mental phenomena needed at all? Why couldn't we merely dispense with it?

One pretty straightforward answer is that classifying goes hand in hand with describing. Since Brentano argues that a description of mental phenomena is needed before any tentative explanation thereof (Brentano 1995a), it follows that a classification of mental phenomena is needed as well. To put it in a slogan, Brentano takes it that there is *no description without classification*, indeed no scientific description without a natural classification. This connection between description and classification is supported by the following simple argument: (1) Describing implies naming; (2) naming implies classifying; therefore, by transitivity, (3) describing implies classifying. In sum, classification merely results from the use of a general language. This view is held by Mill: “By every general name which we introduce, we create a class” (*System*, I.7.1; Mill 1974, 118).¹³ To put it differently, *descriptors* are general names and general names are *classifiers*. Brentano explicitly follows Mill on this point. In the manuscript of the third Book of PES, he writes:

Every description involves, as John Stuart Mill correctly emphasises, more than the perception; it involves comparison and interpretation. Saying that “this is red” amounts to saying that, with respect to the intuition of colour, it corresponds to some objects which had been previously seen and *belongs with them to one class* (Brentano Ms. Ps. 53, 53002; my emphasis).¹⁴

This connection between description and classification explains why psychologists cannot help naming, hence classifying, the phenomena at issue. It also explains why ordinary language provides the researcher with ready-made classifications (see, e.g., *System*, IV.3.1; Mill 1974, 663, quoting Bain; Brentano Ms. EL 80, 12.994, 1995b, 45, 177)—classifications which nevertheless often need to be improved to meet the scientific standard of univocity. However, this answer cannot be the whole story, for it remains entirely silent on the epistemic function of classification. I want now to suggest that another, more interesting answer follows from Brentano’s conception of empirical psychology.

It is probably not incorrect to say that Brentano’s project in PES is to turn psychology into a positive science in Comte’s sense. In his article on “Auguste Comte and Positivism,” John Stuart Mill aptly remarks that “the meaning of Positive would be less ambiguously expressed in the objective aspect by Phænomenal, in the subjective by Experiential” (Mill 1891: 10). In line with Mill and Hamilton (Hamilton 1970, 1:86), Brentano refers to scientific or positive psychology as “phenomenal psychology” and defines the latter as a theory of mental phenomena. In PES he conceives of the agenda of phenomenal psychology by analogy with that of the natural sciences and sets it as follows. Scientific psychology must

- (i) determine the characteristics common to all mental phenomena,
- (ii) divide the mental phenomena into natural classes according to their “natural affinities,”
- (iii) investigate the ultimate mental elements, and
- (iv) establish the more general laws of the succession of mental phenomena (Brentano 1995b, 44–47).

Interestingly, the classification project occupies a definite position in the psychologist's agenda. On the one hand, it is clear that, for Brentano, the classification of mental phenomena is not the first task, since it is supposed to follow from the knowledge of the characteristics common to all mental phenomena. On the other hand, the classification is supposed to pave the way for the discovery of psychological laws. As Brentano puts it, the classification of the mental phenomena is not only of dramatic importance in and for itself, it is "important for all our subsequent investigations as well" (Brentano 1995b, 177).

The reason the classification of mental phenomena is a prerequisite for the investigation of psychological laws is that the latter are, for the most part, *class-specific*. Most psychological laws apply to *some* class of mental phenomena but not to all. If this view is correct, then it is vain to try to establish the laws of succession without having first divided the mental phenomena into fundamental classes. To press the point, Brentano uses the analogy with the natural sciences, and especially with physics:

The principle of the subdivision of mental phenomena will emerge from a consideration of their general characteristics; and this will lead immediately to the determination of the fundamental classes of mental phenomena on the basis of their natural affinities. *Until this is accomplished, it will be impossible to make further progress in the investigation of psychological laws, inasmuch as these laws apply for the most part only to one or another kind of phenomena.* What would be the outcome of the researches of the physicist experimenting upon heat, light and sound if these phenomena were not divided into natural groups for him by a patently obvious classification? By the same token, without having distinguished the different fundamental classes of mental phenomena, psychologists would endeavor in vain to establish the laws of their succession. (Brentano 1995b, 44–45; my emphasis)¹⁵

More formally put, thus, Brentano's argument for the classification project runs as follows: (1) If the laws the psychologist tries to discover are class-specific, then the discovery of those laws requires a preliminary classification of the relevant phenomena; (2) the laws the psychologist tries to discover are class-specific; therefore, (3) their investigation requires a preliminary classification of the relevant phenomena.

Pivotal to this argument is the claim that psychological laws are class-specific. This claim can be traced back to Mill. As a matter of fact, Brentano enthusiastically praises Mill for having demonstrated that belief cannot be "founded entirely upon the laws of association of ideas" (Brentano 1995b, 224). This is not to say, of course, that the laws of association of ideas, which explain the succession of presentations, do not play any role at all in the emergence and succession of judgements and emotions. After all, judgements and emotions are complex phenomena which have a presentational dimension. Yet, the transition from a judgement to another judgement, or from an emotion to another emotion, cannot be entirely accounted for in terms of association of ideas. Rather, *in addition to* the laws of association of ideas, judgements and emotions are subject to "special laws of succession and development" (Brentano 1995b, 224). Very often, one comes to judge that *q* on the basis of one's judging that *p*. For example, it is rational for one to judge that *q* if one believes that *p*

and that if p then q . Similarly, Brentano insists that one often comes to love something on the basis of one's loving something else. Love (or, for that matter, hate) may be transferred from something to something else. And if a judgement may be correct or incorrect, love may be morally right or wrong. Since presentations as such are neither correct nor incorrect, the laws of succession that apply to presentations do not suffice to explain transitions in the fields of judgement and interest.¹⁶ In this respect, Brentano writes, Mill's view does not need further support: It is "sufficiently clear" and "recognised by all thinkers" (Brentano 1995b, 225).

Let's take stock. Mill's claim that psychological laws are class-specific, rather than the more general view that naming implies classifying, provides Brentano with the motivation for running the classification project. At this point, a further question arises: What, exactly, is the relation between the classification project and the investigation of psychological laws? According to a static view, classes are established once and for all independently from any discovery of genetic laws. In other words, they are theory-independent. On closer inspection, such a static view does not quite seem to be Brentano's. In PES Brentano presents the relation between classification and explanation as a dynamic relation of mutual improvement: "Here, as in other fields, the classification and knowledge of characteristics and laws will mutually perfect one another as the science develops further" (Brentano 1995b, 195). Clearly, Brentano does not think of the classification project as disconnected from the investigation of laws. This does not mean, however, that what determines a mental class simply is the possibility of formulating a general proposition expressing a genetic law which holds true for all members of the class.¹⁷ Brentano does not go as far as saying that mental classes are determined by the formulation of genetic laws alone, in which case his classes would be theory-dependent. On the contrary, in PES, he seems to endorse another, *descriptive* criterion for class membership, namely, the fact that all the members of the class resemble each others in numerous respects. This, as we shall see, is the key idea behind the notion of natural classification.

4. Natural Classification

Recall the second premise of Brentano's argument:

P2 There are as many fundamental classes of mental phenomena as fundamentally distinct intentional modes.

P2 amounts to saying that intentional modes provide us with the right division principle for the classification of mental phenomena. Interestingly, Brentano does not claim any originality on this point. He maintains that intentionality is the division principle that has been used "most frequently and in all periods" (Brentano 1995b, 193). For example, he claims, it was the secret division principle in Aristotle, Kant, Hamilton and Lotze (Brentano 1995b, 188)—and, indeed, Aristotle's preferred criterion (Brentano 1995b, 197).

But what, if anything, justifies P2? This is where the notion of *natural* classification enters into play.

Brentano writes:

A scientific classification should be such that it arranges the objects in a manner favorable to research. To this end, it must be natural, that is to say, it must unite into a single class objects closely related by nature, and it must separate into different classes objects which are relatively distant by nature. Thus classification is only possible when there is a certain amount of knowledge of the objects to be classified, and it is the fundamental rule of classification that it should proceed from a study of the objects to be classified and not from an a priori construction. (Brentano 1995b, 194)

To be sure, mental phenomena are likely to be classified in many ways according to any arbitrary selected criterion. Yet, not all classifications are descriptively relevant and may serve the purpose of formulating psychological laws. Here is a striking example: suppose you arbitrarily divide your stream of consciousness so as to group together mental acts that occurred today before 9am in one class and those that occurred today after 9am in another. Plainly, the resulting groupings will be hardly relevant when it comes to describing the varieties of mental phenomena which manifest themselves in your own experience. Among all possible classifications of mental phenomena, the only one which is scientifically useful is the natural classification, i.e., that which unites phenomena “closely related by nature” and separates those which are “distinct by nature.” Only a *natural* classification, Brentano argues, is descriptively relevant.

That, plausibly, was the overarching opinion at the time.¹⁸ But what, exactly, makes a classification “natural,” as opposed to artificial or arbitrary? And in what sense is the classification according to intentional modes more “natural” than other, alternative classifications? In the above-quoted passage, Brentano claims that “it is the fundamental rule of classification that it should proceed from a study of the objects to be classified and not from an a priori construction.” This last sentence strikingly echoes August Comte’s “true principle of classification.” According to this principle,

the classification must proceed from the study of the things to be classified, and must by no means be determined by a priori considerations. The real affinities and natural connections presented by objects being allowed to determine their order, the classification itself becomes the expression of the most general fact. (Comte 1896a, 1:20; Brentano 1987a, 277)¹⁹

Comte argues that natural connections are revealed by the fact that two mental phenomena belonging to the same fundamental class resemble each other more than any other phenomenon that does not belong to the class. Let’s call that the principle of *comparative likeness*: “In contemplating the groups, the process is to class together these species which present, amidst a variety of differences, such essential analogies as to *make them more like each other than like any others*” (Comte 1896b, 2:62; my emphasis).²⁰ This principle has been further developed by Mill. One fundamental condition to have a natural classification, Mill writes, is that “the objects contained in each genus or family resemble each other more than they resemble anything which is excluded from the genus or family” (*System*, IV.7.4; Mill 1974, 721).²¹ More pointedly, Mill argues that a scientific or natural classification is obtained “when the objects are formed into groups respecting which a greater number of general

propositions can be made, and those propositions more important, than could be made respecting any other groups into which the same thing could be distributed” (*System*, IV.6.2; Mill 1974, 714; Brentano 1956, 82).

Mill illustrates the difference between artificial and natural classification as follows. Suppose you are asked to group together all the things which are white; the resulting class would be hardly homogeneous and would arguably include objects of many different sorts. If one excepts the proposition which says that they are all white, it might be impossible to say something true about them all that would have been discovered through observation as well. White things do not exhibit further common properties, except maybe some properties which are connected to their being white. As Mill puts it:

Some classes have little or nothing in common to characterize them by, except precisely what is connoted by the name: white things, for example, are not distinguished by any common properties except whiteness; or if they are, it is only by such as are in some way dependent on, or connected with, whiteness. (*System*, I.7.4; Mill 1974, 122)

For example, all things which are white are coloured, or all things which are white have spatial extension. But it is plain that the property of being coloured and that of having spatial extension are connected with the property of being white and are, somehow, “contained” in it. By contrast, Mill argues, the members of a natural class share a great, indeed *virtually unexhaustible* number of common properties, some of which already known and others yet to be discovered. Admittedly, Mill goes on, every classification has both a natural and a conventional dimension. It captures differences in the things themselves, the recognition of which is an intellectual act. Yet, in the case of a natural classification, the power of framing classes is forced upon us by the number and importance of resemblances:

Where a certain apparent difference between things (though perhaps in itself of little moment) answers to we know not what number of other differences, pervading not only their known properties, but *properties yet undiscovered*, it is not optional but imperative to recognise this difference as the foundation of a specific division. (*System*, I.7.4; Mill 1974, 123; my emphasis)

Does this view apply to the “natural classes” Brentano introduces and defends in PES? I think the answer is *yes*. Like Mill, Brentano claims that “even the most natural classification is still somewhat artificial” (Brentano 1995b, 268). Yet, like him too, he takes it that some classifications are more natural than others. On the principle of comparative likeness, indeed, a class of phenomena may be said to be “natural” when it is obtained on the basis of *several differences*. Now, by my lights, if intentional modes offer the right division principle, as stated in P2, it is precisely because the difference of intentional mode “answers to we know not what number of other differences,” to use Mill’s expression. The difference of intentional mode is the natural one in the sense that it accounts at once, so to speak, for several differences.

For the sake of illustration, consider again the difference between *having a presentation of a* Raspberry Ripple ice cream and *judging that* Raspberry Ripple is your favourite ice cream flavour. In Brentano's view, the two types of mental phenomena at issue differ from one another in at least four respects, although the list of differences should probably be considered open. First, the presentation as such is neither correct nor incorrect, it does not exhibit the kind of "contrast" (or "oppositonality") that judging acts exhibit. Second, it has a certain degree of vividness but no degree of conviction, indeed it lacks entirely convictional intensity, which by contrast is present in judgement. You may judge, say, that Raspberry Ripple is your favourite ice cream flavour with more or less certainty, but you cannot have a presentation of a Raspberry Ripple ice cream with more or less certainty: A presentation is just not the kind of thing which may be more or less certain. Third, when you have a presentation of a Raspberry Ripple ice cream, Brentano maintains that you cannot be right or wrong. Only judging acts instantiate the kind of "perfection" or "imperfection" that corresponds to knowledge and error. And fourth, as already mentioned in the previous section, the succession of judging acts cannot be accounted for in terms of laws of association of ideas only. To explain the transitions from a judgement to another judgement, one has to capture the rational (as opposed to merely mechanical) dimension of such transitions.

To sum up, the division of mental phenomena into "natural classes" crucially depends on the existence of multiple differences between the members of the different classes:

When judgement is added to presentation, we find an entirely new kind of contrast, an entirely new kind of intensity, an entirely new kind of perfection and imperfection, and an entirely new kind of law governing their generation and succession. [...] The class of love and hate, taken as a whole, distinguished itself in the same thoroughgoing way from presentation and judgement, through its characteristic properties. (Brentano 1995b, 251)

In Brentano's eyes, the existence of such multiple differences points to the fact that his tripartite division of mental phenomena is a "natural" classification, rather than a merely arbitrary or artificial one. Now taking the difference of intentional mode as division principle precisely is a way of accounting for those multiple differences. Indeed, Brentano takes it that *two mental phenomena which have the same fundamental intentional mode resemble each other more than any other mental phenomenon with a fundamentally different intentional mode*. The difference in intentional mode accounts for all the other relevant differences: "The more psychology has developed, the more it has discovered that the properties and laws common to each group of mental phenomena are more closely connected with fundamental differences in the way the phenomena refer to an object than with any other difference" (Brentano 1995b, 197). Accordingly, it seems that Brentano's line of reasoning may be reconstructed as follows: (1) from a scientific point of view, the best classification is the natural one; (2) when a classification imposes itself in virtue of several converging differences, it is said to be natural; (3) the classification of mental phenomena according to their intentional mode imposes itself

in virtue of several converging differences, indeed the difference of intentional mode encompasses a number of other differences; therefore, (4) it is the natural classification; hence, (5) it is the best one.

This line of reasoning vindicates P2. But it also has further interesting consequences for our understanding of Brentano's classification project. On a subsidiary note, indeed, it is plausible to think that the principle of comparative likeness holds true for the class of mental phenomena itself, as opposed to that of physical phenomena. If it is a natural class, then intentionality alone cannot be considered *the* mark of mental phenomena. Rather, it is but *one* mark of mentality among others, since natural classes, again, are based on several marks. This interpretation, I believe, is confirmed by the fact that Brentano acknowledges other marks of mentality as well—namely, real existence, unity, and, above all, inner perception. But I won't pursue this line of thought further.²²

5. Definition vs. Type Species

The previous section has shown that, for Mill, a natural classification cannot be based on one single resemblance, but on numerous resemblances. In this respect, Mill's view is not different from Whewell's, who argues that "*no one* character can be imperative in a natural method" (Whewell 1857, 3:282). What makes a class natural is not the existence of one single common character. Rather, the characters must be "all taken together" (Whewell 1858b, 229). This is the meaning Whewell attaches to the concept of "natural affinity":

We must teach the *natural* not the artificial *classifications*; or at least the natural as well as the artificial. For it is important for the student to perceive that there are classifications, not merely arbitrary, founded upon some *assumed* character, but natural, recognised by some *discovered* character: he ought to see that our classes being collected according to one mark, are *confirmed by many marks* not originally stated in our scheme; and are thus found to be grouped together, not by a single resemblance, but by a *mass of resemblances, indicating a natural affinity*. (Whewell 1858: 174; my emphasis)²³

That said, an important question remains unanswered: How are we to recognise whether some given phenomenon belongs to a class or not? This is where Mill and Whewell depart from one another and offer two competing models of natural classification.²⁴

On Whewell's view—which might well have been the common view at that time (Wilkins and Ebach 2014, 47)—two objects resemble each other in the relevant way, hence belong to the same natural group, in virtue of resembling to a *type* (or prototype). The method of natural classification is identical to the *method of type* (Whewell 1858b, 230).²⁵ Central to this view is the claim that one does not need to have a definition that captures what the phenomena belonging to one and the same class have in common. Suffice it to say that they resemble the *type species*:

The principle which connects a group of objects in natural history is not a definition but a type. Thus we take as the type of the Rose family, it may be, the common wild rose; all species which resemble this flower more than they resemble any other group of species are also roses, and form one genus [...]. And

thus the Rose family is collected about some one species which is the type or central point of the group. (Whewell 1840, 2:518)

On Mill's view, by contrast, two objects resemble each other in the relevant way, hence belong to the same natural group, if they have numerous characteristics in common. Mill therefore rejects the method of type is inappropriate. Whereas the reference to a type is allowed to guide the process of classification, hence is endowed with a *pragmatic* function, the true *rationale* behind natural classes is displayed by the discovery of multiple common traits. For Mill, the reference to a type is ancillary to the reference to common characters. It is the latter, not the former, that provides us with a reason to group two objects in the same natural class: "Though the groups are suggested by types, I cannot think that a group when formed is *determined* by the type; that in deciding whether a species belongs to the group, a reference is made to the type, and not to the characters" (*System*, IV.7.4; Mill 1974, 721). In this respect, Mill's view seems to be a version of what might be called the *definitional* account of class membership, according to which class membership is determined by the possession of a set of necessary and sufficient characteristics. To be sure, Mill concedes, there is room for exceptions in every classification. Even if an object does not exhibit *all* the characters that determine the class, it may still be put in the class as far as it resembles the other objects of the class more than any other objects. Yet, even in that case, class membership is determined by the possession of *some* (if not all) common traits, which may be captured by means of a definition:

There are always some properties common to all things which are included. Others there often are, to which some things, which are nevertheless included, are exceptions. But the objects which are exceptions to one character are not exceptions to another: the resemblance which fails in some particulars must be made up for in others. The class, therefore, is constituted by the possession of *all* the characters which are universals, and *most* of those which admit of exceptions. (*System*, IV.7.4; Mill 1974, 722)

In his Würzburg logic course, Brentano comments on this passage as follows:

A certain series of characteristics makes up the character of the class. Yet, the class is not only made up of what possesses this series of characteristics, but also encompasses that which is more similar to the things which possess the relevant characteristics than to anything else. Not all characteristics which make up the character of the class, then, are universal; other characteristics have their exceptions and are shown only by most of the things that belong to the class. (Brentano Ms. EL 80, 13.066(2))

Brentano, it seems, agrees with Mill that the method of type is subsidiary to the discovery of common characteristics, as revealed by his efforts to identify characteristics common to all mental phenomena, and others common to all mental phenomena of the same class. Thus, for him, it is not so much the reference to a type species than the presence or absence of several common characteristics that provides the criterion for class membership. However, not each and every member of the class has to exhibit *all* the characteristics which determine the class membership. As far as a given phenomenon resemble the other members of the class more than any other phenomenon—as far as it satisfies the principle of comparative likeness—the phenomenon in question may be included in the class. One interesting consequence of this view is that moods, for example, may be included in the class of

mental phenomena even if they are constructed as non-intentional phenomena. It would be enough to say that they resemble other mental phenomena more than any physical phenomena. Brentano, however, does not argue along those lines and rather sticks to the claim that all mental phenomena without exception are intentional.

6. Fundamental Intentional Modes

Arguably, one crucial challenge for Brentano's classification is not to establish the varieties of intentional mode as division principle (P2) but rather to get the division right. As we have seen, Brentano maintains that intentionality was already used as division principle by Aristotle, Kant, and others. Yet, although these authors had the right division principle in hand, they somehow *misapplied* it. Brentano holds that the right application of the division principle is captured by P1:

P1 There are three and only three fundamentally distinct intentional modes, namely (i) presentational, (ii) judgemental, and (iii) attractive or repulsive.

What evidence does Brentano provide for P1? There is little doubt that he partly relies on historical evidence. Roughly speaking, the tripartite division captured in P1 is Aristotle taxonomy (*noûs* and *orexis*), supplemented with the modern notion of ideas, as offering the neutral basis for theoretical and practical behaviours (Tassone 2012, 157). Besides, it is plain that a strong motivation for Brentano's tripartite classification comes from the fact that it parallels the threefold "perfections": the beautiful, the true, and the good. However, if the classification is not the result of an a priori construction, none of those reasons should be decisive. Rather, differences between intentional modes should be discovered in experience, they should be supported by *empirical* evidence as well.

Admittedly, Brentano would say that the differences of intentional modes are ultimately given in inner perception, indeed that inner perception is "the only arbitrator" when it comes to judging whether two mental phenomena belong to the same fundamental class, hence are subspecies of the same mental species (Brentano 1995b, 200). Yet, even if it is taken for granted that qualitative—or, in our terminology, attitudinal—differences are given in inner perception, not all of them are "fundamental" in Brentano's sense and deserve to be taken into account when it comes to identifying the highest mental species. For example, there is, admittedly, a qualitative difference between affirming and denying that Raspberry Ripple is your favourite ice cream flavour. And yet, this difference cannot be put on a par with the (arguably, more fundamental) difference between having a presentation and judging. As Brentano writes:

There are many different ways of referring to an object; first and foremost, we should regard the distinction between affirmation and negation as such a difference. It is correct to call them qualitatively different. Still, the unity of one and the same basic class extends over both, since they are alike in their general character, and their separation, though it too is part of their nature, does not even begin to approach the fundamental significance of the distinction between presentation and judgement [...]. If

anything, it is even more obvious that the qualitative differences between particular kinds of love cannot be taken into consideration, in a basic classification of mental phenomena, than it is that the qualitative differences between judgements should not be taken into account in such a classification. If they were, the ultimate classes would become extraordinarily numerous, or rather downright innumerable. (Brentano 1995b, 250)

Therefore, the question remains as to how to make a distinction between *fundamental* and *non-fundamental* intentional modes. What, if anything, makes two distinct intentional modes *fundamentally* distinct? In the remaining of this section, I shall critically discuss three candidate criteria Brentano hinted at to vindicate P1 and conclude that none of them is free of objections.

The first candidate is *underivability*. As Brentano notices, the diagnosis of underivability may be traced back to Kant and, furthermore, to William Hamilton's *Lectures on Metaphysics and Logic*. When one has moved from cognition to pleasure and pain, desire and volition, Hamilton writes, "a quality, a phaenomenon of mind, absolutely new, has been superadded, which was never involved in, and could, therefore, never have been evolved out of, the mere faculty of knowledge" (Hamilton 1970, 1:187; Stout 1896, 1:39). The idea is as follows:

Underivability

Two mental attitudes with the same content belong to fundamentally distinct intentional species only if they cannot possibly be derived from one another.

Brentano himself objects that underivability proves too much, using the following ad absurdum argument: (1) If two phenomena cannot be derived from one another, then they belong to distinct fundamental classes; (2) hearing and seeing cannot be derived from one another (proof: blindness/deafness); therefore, (3) hearing and seeing belong to distinct fundamental classes; (4) 3 is absurd; (5) to avoid this absurdity, 1 must be rejected. Intentional mode, Brentano concludes, is "a cleft which cuts more deeply than mutual underivability" (Brentano 1995, 188):

If two phenomena are to be ascribed to two different basic classes just because the capacity for the one cannot be inferred *a priori* from the capacity for the other, we would have to distinguish not only presentation from feeling and desire as Kant, Hamilton, and Lotze do, but we would also have to distinguish sight from taste and even seeing red from seeing blue, as phenomena belonging to distinct fundamental classes. (Brentano 1995b, 187)

Not all underivable tokens of mental phenomena exhibit a distinct intentional mode. As Stout puts it, Hamilton's underivability principle is "correct" but contains "no adequate justification of the triple division of mental functions" (Stout 1896, 1:39).

Now, when it comes to justifying the unification of feelings and desires into the class of interests, Brentano uses another principle I shall label *continuity*:

Continuity

Two mental attitudes with the same content belong to fundamentally distinct intentional species only if they cannot possibly be part of a continuous series.

One main trouble with continuity, however, is that it may be accounted for in terms of two distinct attitudes combined in varying ratios, as Stout rightly suggested.²⁶ Therefore, the continuity account is not conclusive.

A third candidate is *compatibility*. Despite analogies between judgement and interest, Brentano notices, “believing something is quite different from loving it, and denying an object is just as different from hating it, *otherwise there could be no such thing as sad news*” (Brentano 1995b, 288; my emphasis). If judgement and interest were part of one and the same series of mental attitudes, there would be no sad news. Now, there are sad news—or so teaches inner experience. It is the case that we sometimes experience a positive belief accompanied with a negative feeling (e.g., sadness). Therefore, judgement and interest are not part of one and the same series of mental attitudes. The key idea is that, if two mental attitudes with the same content belong to the same intentional species, then they are *not* compatible with one another. For example, in Brentano’s view, I cannot truly affirm and deny the same content at the same time. More positively put, only attitudes pertaining to different species can be experienced at the same time.

Compatibility

Two mental attitudes with the same content belong to fundamentally distinct intentional species only if they can coexist simultaneously, i.e., if they are compatible with one another.

Now this account, too, is not without its difficulties. First, if this diagnosis holds for the separation of judgement and emotion, then it should work in other cases as well. Indeed, one crucial condition of a scientific classification is that the same rule is steadily applied all across the board (Brentano 1956, 81). But if it is so, it is far from being clear that the compatibility account actually supports P1.

Husserl, for example, challenges P1 *on the basis of the compatibility account*. It seems impossible, he would argue, to have a “mere presentation” of a Raspberry Ripple ice cream (in remaining neutral) and simultaneously produce a judgement about exactly the same thing. Presentational quality, which is non-committal, and judgemental quality, which is committal, are incompatible (Husserl 2002, 110).

Husserl concludes that presentation and judgement fall into one single class, namely, the class of the objectifying acts. Next, another difficulty with the compatibility account is that it is inconsistent, at first sight, with the existence of *mixed feelings*. It seems plausible to say that the very same content may arouse mixed feelings or even contradictory emotions, to the effect that the same state of affairs may be experienced both as pleasant and unpleasant. If the compatibility account is true, then one is forced to conclude that distinct compatible feelings with the very same content belong to fundamentally distinct classes—which sounds absurd. One way of saving the compatibility account,

though, is to argue that mixed feelings actually represent or “conceptually frame” their objects in different ways, hence do have different contents after all.²⁷ Yet, I won’t say more about this debate here.

Conclusion

I have argued that Brentano’s project of dividing the phenomena into “natural classes” is best understood against the background of the theories of natural classification that were circulating at the time he wrote PES. More pointedly, I have suggested that the principles underlying Brentano’s argument for his tripartite classification of mental phenomena may be traced back to views held by Comte and Mill. Reading PES in the light of those views proves illuminating. As regards Brentano’s argumentative strategy, three main lessons may be drawn from the proposed reconstruction.

First, what motivates Brentano’s classification project is Mill’s claim that psychological laws are class-specific. A classification is needed because most psychological laws apply to one class of mental phenomena but not to all. Interestingly, this view suggests that the classification of mental phenomena cannot be entirely disconnected from the investigation of psychological laws. In this respect, Brentano certainly did not regard his tripartite classification as definitive. His declared objective, in PES, was simply to allow himself “to be guided by the psychological knowledge which has been attained so far” so that he could “at least pave the way for the best ultimate classification, even though it may be impossible as yet to establish it” (Brentano 1995b, 195). This suggests that the classification of mental phenomena depends on one’s knowledge of psychological laws. It is, at least to some extent, *theory-dependent*.

Next, the claim that (P2) there are as many fundamental classes of mental phenomena as fundamentally distinct intentional modes is supported by (what I have called) Comte’s principle of comparative likeness. According to this principle, two phenomena belong to the same natural class if they resemble each other more than any other phenomenon which does not belong to the class. Now Brentano takes it that two mental phenomena which have the same intentional mode resemble each other more than any other mental phenomenon with a fundamentally different intentional mode. The possession, or lack, of a common intentional mode entails the possession, or lack, of a number of common characteristics (including a certain kind of oppositionality, intensity, and “perfection”). This is the reason why a division of mental phenomena according to their intentional mode is the most “natural” one—hence, in Brentano’s eyes, the best one.

Finally, the main difficulty with Brentano’s argument probably lies in the first premise, according to which (P1) there are three and only three fundamentally distinct intentional modes, namely (i) presentational, (ii) judgemental, and (iii) attractive or repulsive. This premise presupposes that there is an objective criterion according to which it should be possible to distinguish between differences of

intentional mode which are “fundamental” (e.g., presentation vs. judgement) and differences which are not (e.g., affirmative judgement vs. negative judgement). In this respect, I have reviewed three candidate criteria hinted at in PES and suggested that none of them are entirely conclusive.²⁸

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¹ The 1911 edition has been published on the occasion of PES's translation into Italian. It is made up of chapters 5 to 9 of Book 2 (Brentano 1995b, 177–268), supplemented with eleven “remarks intended to explain and defend, as well as to correct and expand upon the theory” (see Brentano 1995b, 271–307).

² See (Kriegel 2017). George Stout, who took over the classification project, aptly summarises it by saying that “there are psychological as well as biological species” (Stout 1896, 1:9). Interestingly, genus-species relations are explicitly used by Anton Marty to defend Brentano's classification against Meinong's (see Marty 1906; Richard 2017).

³ Although “judging that *p*” probably may be considered the paradigmatic form of judgemental acts, Brentano takes it that judgemental attitudes also admit of a strictly nominal construction of the form “acknowledging/rejecting A.” Indeed, whether the content of the act is propositional or nominal is, in PES's first edition, a matter of indifference: from a psychological point of view, the only thing that matters is the “act quality” (e.g., whether the act is committal or non-committal, etc.). More on that in (Dewalque 2013).

⁴ Plausibly, in 1874, Brentano thinks of the connection between presentation and judgement in terms of “presentation” being a *logical part* of “judgement” (just like, say, “geometrical form” is a logical part of “triangle”). One-sided dependence relations are addressed more extensively in the courses on *Descriptive Psychology*, in which the theory of distinctional parts is introduced (Brentano 1995a).

⁵ Although such dependance relations raise interesting issues on their own, I won't say more about them here.

⁶ For a critical discussion, see (Marty 1906). Interestingly, Meinong's modifications go hand in hand with the endorsement of a dichotomy method: Mental phenomena are divided into emotional and non-emotional (i.e., cognitive), emotional phenomena are divided into passive (feeling) and active (desires), and so are cognitive phenomena (presentations are passive, thoughts are active, viz. involve an affirmative or negative component). The resulting classification is exposed in (Höfler 1930, 1:102 ff.). The method of dichotomous division, according to which the *differentia specifica* is the presence or absence of a trait, usually is traced back to Aristotle. However, Aristotle explicitly rejected this method for biological species, one reason being that dichotomous divisions lead to unnatural groups (Richards 2010, 21–22). Brentano's own classification doesn't rely on the dichotomous method.

⁷ See, e.g., (Hedwig 1988, 40, n. 17) and (Brentano 1987b). In 1889, however, Brentano still wrote: “Except for certain points of detail, I believe that what I say [in PES] about the classification of psychological phenomena is substantially correct” (Brentano 2009, 9, fn. 20).

⁸ This is the opinion of the english experimental psychologist Edward Titchener: “I take that act-and-content psychology to be a psychology not of observation but of reflection. I note that it has led, in different hands, to very different classificatory systems. I think that Brentano found a difficulty in carrying it over from the general to the particular” (Titchener 1929, 53). Titchener especially remarks that the Brentanian philosophers disagree about the place of sensations in their classificatory systems. He concludes, echoing the preface of PES: “On the basis of [Brentanian] intentionalism, there will be only psychologies” (Titchener 1929, 253).

⁹ This view, which was shared by Husserl and August Messer, has been critically discussed by Hugo Bergmann, who objects that no criterion is offered for the unity of the class of *Erlebnisse* (Bergmann 1908, 71–72).

¹⁰ On Brentano's own version of “naturalism,” see (Benoist 2011).

¹¹ Whewell's *Philosophy of the Inductive Sciences* was intended to be the philosophical counterpart of his *History of the Inductive Sciences* (first edition 1837, third edition 1857).

¹² Recent scholarship has shown that Whewell's views are historically at least as important as those of Comte et Mill, which he happens to have discussed extensively (see Whewell 1849, 1866).

¹³ A similar point is made by Whewell, according to whom “names imply classification,” for “even the rudest and earliest application of language presupposes a distribution of objects according to their kinds” (Whewell 1857, 3:164).

¹⁴ Brentano's original manuscript reads: „Jede Beschreibung enthält, wie John Stuart Mill mit Recht hervorhebt, mehr als die Wahrnehmung; sie enthält Vergleich und Deutung. Wer sagt: dies ist rot, sagt, dass es in Anschauung der Farbe mit gewissen früher gesehenen Gegenständen übereinstimme, zu einer Klasse mit ihnen gehöre“. See also (Whewell 1847, 1:470): “We cannot call an object *green* or *round* without comparing in our thoughts its colour or its shape, with a shape and a colour seen in other objects.”

¹⁵ In his lectures on descriptive psychology, Brentano presents the psychologist's agenda in a way which is not so different from what is said in this passage. He writes that, “as regards psychical acts, we wish to identify, above all, (a) what they have in common, [and] (b) the main classes they fall into” (Brentano 1982, 83, 1995a, 86).

¹⁶ On all this, see (Srzednicki 1965, 60 ff.).

¹⁷ Compare Whewell: “The criterion of a true classification is, that it makes general propositions possible” (Whewell 1858b, 229).

¹⁸ As Whewell pointed out, one way of putting the problem is to say that artificial classifications must be seen as subsidiary and preparatory to the Natural Orders, rather than opposed to them (Whewell 1857, 3:274). Linné's great merit, Whewell goes on, precisely is to have regarded the artificial method as “instrumental to the investigation of a natural one” (Whewell 1857, 3:267–68). Brentano himself notes that Aristotle “quite aptly preferred Linné's natural method of classification on the artificial one” (Brentano 1986, 107).

¹⁹ A similar view is held by Whewell, who also rejects any a priori criterion: “The Method of Natural Classification is directly opposed to the process in which we assume and apply *arbitrary* definitions; for in the former Method, we find our classes in nature, and do not make them by marks of our own imposition” (Whewell 1958: 230).

²⁰ Comte insists that the division into natural classes is less important than the “natural order” between the classes. Building up natural groups is an “indispensable preparation for the marshalling into a series of the immeasurable mass of materials presented by nature” (Comte 1896b, 2: 62). It is merely a preliminary step in the natural method, “the great condition of which is that the mere position assigned to each body makes manifest its whole anatomical and physiological nature, in its relation to the bodies which rank before or after it” (Comte 1896b, 2: 62). As Mill remarks, Comte is the only modern writer to have highlighted the importance of arranging the natural groups into a natural series (System, IV.8.1; Mill 1974, 726). Brentano's own insistence, in PES, on the natural order of the classes of mental phenomena is in line with Comte's view.

²¹ The same principle is also endorsed by Herbert Spencer: “A true classification includes in each class, those objects which have more characteristics in common with one another, than any of them have in common with any objects excluded from the class” (Spencer 1864, 3).

²² The idea that inner perception, for Brentano, is another mark of mentality alongside intentionality is developed in (Dewalque forthcoming).

²³ In Whewell, this view is connected to the notion of *consilience*, which captures the *converging* character of distinct classification criteria. See (Quinn 2017).

²⁴ Another major disagreement between Mill and Whewell lies in Mill's objection that the mere “colligation of facts” is not an induction in the proper sense of the term. For a comparison of the views held by Comte, Whewell, and Mill, see, e.g., (Kremer-Marietti 1995; Pont 2007; Snyder 2006, 2008).

²⁵ This view is not without anticipating Wittgenstein's theory of family resemblances (Wilkins 2013, 225; Wilkins and Ebach 2014, 45).

²⁶ “The assumption that each of the several phases of consciousness intervening in the psychological series between a sorrowful mood and voluntary determination to act must be referred either to the head feeling exclusively, or to the head conation exclusively, is entirely fallacious. There is another alternative. Both elements may be combined in varying ratios in the successive terms of the series, as in the case with blue and green in the blue-green series” (Stout 1896, 1:118).

²⁷ See (Montague 2009).

²⁸ Thanks to Denis Seron for discussions about Brentano's classification project and to Guillaume Fréchette for his comments on a previous draft of this article.