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DANIEL A. SCHMICKING

I

Hume's division of perceptions into simple and complex has been criticized for being vague and perfunctory. Often the division is considered to be a rather weak (even though fundamental) part of his system, yet there is no agreement on its particular shortcomings and no consensus that it is totally impracticable. At the same time, the division between simple and complex perceptions has not attracted strong interest or attention from commentators. Most accounts consist of short paraphrases, some of which suggest a connection with Locke. The few attempts at a systematic explanation include the accounts of Baier,¹ Frasca-Spada,² Garrett,³ Pears,⁴ and Waxman.⁵

The central aim of this paper will be to show how Hume's concept of simple perceptions can be explicated against the background of Husserlian mereology and psychology of perception. This kind of approach, I will argue, sheds the right light on essential aspects of Hume's theory of perceptions. (I will use the term *perception* in the Humean generic sense, to comprehend both impressions and ideas. The faculty or process of perceiving I will call *sense perception*, or, where there is no danger of confusing it with the Humean term, simply *perception*.) The outcome is a defense of Hume's concept of simplicity relying primarily on mereological categories and on experimental evidence. According to the reading to be offered, Hume considers a perception to be *simple* if it is impossible for a subject to distinguish or separate any proper part of the perception by operations of sense perception

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or imagination. This does not contradict the possibility of apprehending, by a distinction of reason, inseparable parts (Hume's *aspects*).

It is undeniable that there is a certain discrepancy between Hume's statements in part 2 of Book 1 of the *Treatise*⁶ and the texts outside this part. Part 2 of Book 1 provides textual evidence for what I will call the *minima reading* or the *minimist view*, an interpretation that identifies simple perceptions with minima sensibilia (or imaginabilia), and does not allow for perceptions that are simple without being minima. The texts outside this part hardly corroborate such an interpretation, however. Rather, Hume seems to take perceptions of mesoscopic objects and several types of passions to be simple, even though they are structured and have diverse aspects. Most of his examples of simple perceptions are clearly above the threshold of being just noticeable and possess both form and extension. Can we harmonize this apparent incoherence in Hume's text, and merge what appear to be incompatible interpretations together? I shall propose a reading of simplicity, and of the attendant division of perceptions into simple and complex, that tries to do justice to the whole *Treatise* (by taking account of passions, and of perceptions belonging to different sense modalities) and tries as well to save what is worthwhile in the minimalist view by interpreting Hume's concept of simplicity as embracing minima sensibilia as a particular class of simple perceptions. Moreover, I will argue that Hume, contrary to strictly atomistic pictures of his philosophy, even endorses an analogue or precursor of the concept of a (temporal and spatial) gestalt. Thus, another facet of Hume's system might emerge, one in which Hume rebuts some of the strongest arguments of the Gestaltists against atomistic psychology. While Hume's concept of simplicity will be shown to depend on mereological distinctions (distinctions Hume seems to take for granted, without expressly explaining them), the Humean gestalt concept can be assigned to what Robert Paul Wolff has characterized as a theory of mental activity. Both components—the mereological and the Gestaltist—are embedded in, or rather, disguised by, Hume's associationist framework and terminology. Thus, I also consent to Wolff's claim that Hume "is forced to express his best ideas in language totally unsuited to them."⁷

I shall begin with an account of recent commentators who reject or defend Hume's division between simple and complex perceptions (section II). Then I shall give an explication of the simplicity of perceptions based on the mereology and psychology of perception (section III), followed by a similar explication of the simplicity of passions (section IV). Further I will argue that Hume endorsed some analogue to gestalt concepts that is indispensable to his account of our ideas of space and time (section V). After that there will be a discussion of the arguments presented in section II, and some more textual evidence for the interpretation offered here (section VI). Finally, I sketch out some implications concerning

Hume's atomism (section VII). Within the limits of this paper, I cannot deal with the sources of Hume's division between simple and complex perceptions, or with disagreements between Hume and his predecessors or contemporaries.

II

In this part, two groups of authors will be presented, (A) scholars who mainly criticize Hume's distinction, and (B) scholars who defend it. I will not give an exhaustive presentation and discussion of the existing literature dealing with the topic of simple/complex in Hume; the authors quoted serve as loose starting points of the considerations that will follow in subsequent parts of this paper.

(A) Quite a few interpreters seem to have dismissed or ignored the problems arising from Hume's division or underestimated the prospects of its justification. For instance, John Laird evaluates Hume's division as "very perfunctory" and "taken for granted,"⁸ but he does not engage in any further explanation or scrutiny of simplicity as presupposed by Hume's theory. Representative of the commentators who briefly discuss and criticize Hume's simple/complex distinction as being vague is Barry Stroud. Stroud criticizes Hume's distinction for the "vague criterion of simplicity suggested by what Hume says. . . . Hume gives us no general guidance about how to tell that we have got down to a simple perception, so we will have to be satisfied with the examples he gives."⁹ James Baillie sees an important problem arising out of Hume's division, which is, as far as I can see, mentioned by hardly any other author. There is a criterion, Baillie says, namely *indivisibility*; but Baillie concedes only "a surface plausibility" to Hume's use of this criterion, "that does not exist with the other senses, and it leads him [Hume] to take simplicity to be a philosophically transparent notion. But what would count as a simple smell, for example? What about a simple sound?"¹⁰ This objection implies a possible discrepancy between the simple perceptions of different sense modalities, which will, in due course, be examined. Annette C. Baier also criticizes shortcomings in Hume's division. Like Laird, she characterizes it as perfunctory.¹¹ Considering problems about non-extended impressions Baier concludes that "Hume simply does not bother to tell us what sort of separability it is, so we are left free to relativize simplicity to the particular concerns at hand. Simplicity is non-analyzability by a given method of analysis, relative to a given set of abstract ideas, and so of linguistic customs, as tools of analysis."¹² Relativizing simplicity in such a manner, Baier assumes a dependence of the simple/complex distinction on linguistic rules, habits, and categories. Of course Baier's interpretation takes Hume out of the tradition of logical empiricism, unlike some earlier attempts at linguistic, logical, or etymological explanations of Hume's distinction.¹³ But Baier's suggestion that words guide the scientist of human nature,¹⁴ let alone any

transposition (Flew) of Hume's psychological theory into an (etymo)logical one, seems to be a detour, which we shall have occasion to explain afterwards. While these authors complain of a perfunctoriness or vagueness in the distinction, or state that Hume's explanation is incomplete or not sufficiently clear, there are a few other authors who do not find such severe defects and who defend Hume's division, or at least parts of it.

(B) David B. Hausman argues that although Hume equivocates on the simple/complex distinction, his conception is not inconsistent because behind the simple/complex division, there is another distinction between psychological and logical simples. The psychological point is to be distinguished from Hume's logical point, namely that we indeed can distinguish or understand—by a distinction of reason—differences between colors, shapes etc. though the latter (logical atoms) never occur in isolation (neither in perception nor imagination).¹⁵ In a considerably more positive move Wayne Waxman rejects objections that judge Hume's simple/complex distinction as “especially naïve, ill-defined, and more than usually beholden to inconclusive examples.” He views Hume's version of the distinction as “among the more nuanced and sophisticated attempts at such a distinction.”¹⁶ Waxman claims that Hume has a criterion of simplicity that is sufficiently clear and well-defined. This criterion is implicitly contained in Hume's Separability Principle. Hume states this principle repeatedly in the *Treatise*, which he introduces at T 1.1.7. (I will make clear the relationship of the Separability Principle to simplicity and the distinction of reason below.)

We have observ'd, that whatever objects are different are distinguishable, and that whatever objects are distinguishable are separable by the thought and imagination. And we may here add, that these propositions are equally true in the *inverse*, and that whatever objects are separable are also distinguishable, and that whatever objects are distinguishable are also different. (T 1.1.7.17; SBN 18. Cf. also T 1.1.7.21, 1.2.1.23, 1.2.3.29, 1.4.5.153, App. 399; SBN 24, 27, 36, 233, 634.)

Given this principle, Waxman defines Hume's criterion of simplicity as follows: “if a perception cannot be separated into others or otherwise analyzed—or, in so far as it can, if these others cannot actually be represented singly and separately by the imagination—then that perception is simple.”¹⁷ According to Waxman's interpretation we are justified by this criterion to classify in theory simple perceptions exclusively as *perceptible minima*, and Waxman supposes Hume to have held this line too. This theoretical criterion, Waxman claims, is often useless in application. A recent reconstruction of separability and simplicity in Hume can be found in Don Garrett's study. Garrett interprets Hume to endorse a distinction of impressions into simple

impression-*tokens* (minima sensibilia, atoms) and simple impression-*types*. Arrays of impression-tokens build, e.g., the complex impressions of white and black globes etc.¹⁸ The reconsiderations below will argue that minima sensibilia and the type/token distinction do not provide a comprehensive explanation of Hume's conception of simple perceptions however. Garrett's interpretation is confined to mainly visual and tactile perceptions and consequently has no comparable account of, for example, simple passions. Moreover, many perceptions that Garrett takes to be complex can be classified as simple according to the reading I will propose.

Keeping those issues in mind, we will be concerned with the following questions arising from Hume's division: Is Hume's concept of simplicity based on a sound and practicable account of perceptual units? Is Hume's concept of simplicity actually vague or naïve or can Hume be shown to have a sufficiently clear criterion of simplicity? What kind of distinction and separability is Hume referring to? Are simple perceptions necessarily perceptible minima or rather of "middle size" like a petal or Hume's globe of marble? Is there a discrepancy between on the one hand, Hume's illustrations and explanations taken from the visual and tactile sphere and, on the other hand, perceptions belonging to other sense modalities?

III

Given Hume's sparse explanation of the division of perceptions into simple and complex at T 1.1.1.7f. (SBN 2), which examples of simple perceptions does Hume himself give in the *Treatise*? He mentions several: "a particular colour, taste, and smell" (T 1.1.1.7; SBN 2); "That idea of red, which we form in the dark, and that impression, which strikes our eyes in sun-shine" (T 1.1.1.8; SBN 3); "all simple ideas may be separated by the imagination, and may be united again in what form it pleases" (T 1.1.4.12; SBN 10); "the idea of extension consists of parts; and this idea . . . is perfectly simple and indivisible" (T 1.2.3.30; SBN 38); "The passions of PRIDE and HUMILITY being simple and uniform impressions" (T 2.1.2.182; SBN 277); "[the passions of love and hatred] . . . produce merely a simple impression, without any mixture or composition" (T 2.2.1.214; SBN 329); "*Blue* and *green* are different simple ideas, but are more resembling than *blue* and *scarlet*; tho' their perfect simplicity excludes all possibility of separation or distinction. 'Tis the same case with particular sounds, and tastes and smells" (T 1.1.7.18, n.5App.; SBN 637).

Obviously what Hume means by *simple* perceptions, apart from visual and tactile minima in T 1.2 and 1.4.4, are phenomena like color patches of a certain single hue and shape, single sounds, smells, or tactile sensations and certain types of passions. (I will deal with passions and simple ideas being united into complex ones or separated and united by imagination below.) For, simple ideas are "copied" from impressions and are correspondent to the latter according to

the Copy Principle, let us take for granted that all that can be said about simple impressions applies to simple ideas. Thus I will mainly deal with impressions in the exploratory passages of the paper. However, this does not mean that the only or principal means of deciding on a perception's being simple is sense perception. Hume attributes an essential role to imagination in deciding whether a perception is simple or not. So we must not pass over the relationship and the roles of sense perception and imagination here. Consider the following cases: complex impressions vs. simple impressions, and complex ideas vs. simple ideas, respectively. (a) Suppose an impression *A* is complex. If there are more or less salient parts a subject can distinguish (separate) them in principle. If there are not salient parts (for a given subject at a given time), *A* is simple or monolithic for the subject, who in that case is not able to distinguish any more parts. It is possible, however, that the subject learns to perceive the distinction(s) in *A*, so that *A* becomes complex later, though initially it is simple for a subject. (b) If an impression *B* is simple the subject will not distinguish parts, but she might be uncertain about the actual nature of *B*. In this case she can focus her attention on *B* to learn whether—with some efforts—there reveal further distinctions to her. If this still does not lead to distinct parts however, the subject may attempt to distinguish *imaginatively* parts in *B*. These operations of (visual, auditory etc.) imagery will lead to (imagined) alterations or variations of *B*, that will point out *B*'s simplicity, or they lead to apprehend inseparable resemblances or aspects (such as loudness or pitch) by distinctions of reason (Cf. T 1.1.7.21f.; SBN 24f). (c) Suppose an idea *C* is complex. Either the subject imaginatively “perceives” salient parts or fails to do so (for the time being), similar to the incomprehensible complexity of *A* (above). (d) Given that an idea *D* is simple, the subject cannot distinguish parts imaginatively. He can grasp the aspects of the simple idea, which are indistinguishable (inseparable), analogous to case (b).

Now, although in cases (a) and (b) it is mainly perceptual attention, which enables the subject to decide on the simplicity of a perception, we must not overlook the imaginary reduction, variation, and segmentation of a present perception in order to decide on the simplicity of the perception. For example, if I see a monochromatic triangle, I can imaginatively take away a portion (to learn that a new, different triangle or quadrilateral etc. would result). Moreover, if we render the operations that are necessary to apprehend the salient complexity to be judgments, the latter too belong to imagination, given this particular sense of the term in Hume.¹⁹ Thus acts of imagination are involved at least in all cases where sense perception does not provide us with a clear, spontaneous classification of *impressions* as simple or complex. Moreover, imagination is the only means of characterizing *ideas* as simple or not; the impossibility of imagining some part as distinguishable and separable is the touchstone of a perception's

simplicity (T 1.1.3.12; SBN 10). And finally, when we decide on the possible simplicity of *types* of perceptions we will necessarily draw on imagination. I will not pursue this issue further, instead I shall concentrate on the formal categories that can be used to explicate Hume's conception of simplicity and the question of whether simple perceptions of other sense modalities than vision and touch can be explicated along the same lines.

So, simple perceptions, such as Hume's examples cited above, do not constitute units without any structure. They possess a certain "complexity" that is composed of several perceptual dimensions (Hume's *aspects* or *resemblances*). To forestall misunderstandings I will refer to this kind of complexity by means of terms like *structure* or *whole*. For instance, a single sound is a whole composed of pitch, timbre, loudness, and duration; a color patch is composed of hue, brightness, saturation, extension, and form (figure or shape, which will be used interchangeably in the text). Every dimension of the structure is dependent on the other dimensions, for instance we cannot see (or imagine) brightness singly, isolated from hue, saturation, shape, and extension, and so on for every dimension. In Husserlian phenomenology (and related mereological theories) such perceptual dimensions are called "dependent parts," "und detachable parts," or "abstract moments" of a whole. They are reciprocally or mutually dependent on one another, or "two-sidedly founded on each other."²⁰ According to mereological categories, Hume's simple perceptions can be explicated as wholes constituted by a number of abstract moments and dependencies existing between them. Indeed many instances of what Hume takes to be simple perceptions would nowadays be classified as *gestalts* by most psychologists and philosophers.

I will use the remainder of this paper in order to fix the terminology. The underlying mereological theory that I rely on is Husserlian formal ontology as most fully expounded in the third of his *Logical Investigations*.²¹ Formal ontology is the study of the formal categories and relations that can be found throughout all different kinds of objects. A particular sphere of kinds or types of phenomena Husserl calls a "material region." Thus any "material" or "regional" ontological study of a particular sphere, for instance of perceptions (in the Humean sense), is based on formal ontology, since the formal categories apply to any region. The mereological, or formal categories that will be used in the subsequent analyses, namely *whole*, (*abstract*) *moment*, *part*, and *dependence* (Husserl's *Fundierung*, i.e., foundation) are defined according to Husserl's definitions as given in the III. *Logical Investigations*, §§ 16, 17, and 21.

- (D1) Some A^1 is *dependent* on some A^2 iff A^1 cannot exist unless A^2 also exists. It is left open whether some coexisting $A^3 \dots^n$ is necessary or not.
- (D2) A^1 and A^2 are *reciprocally dependent* iff A^1 is dependent on A^2 , and A^2 is dependent on A^1 .

- (D3) A^1 is *one-sidedly dependent* on A^2 iff A^1 is dependent on A^2 , but A^2 is not dependent on A^1 .
- (D4) Some coexisting $A^1, A^2 \dots A^n$ constitute a *whole* iff they are all related by any dependence and the coexistence of further $A^{n+1} \dots A^{n+m}$ is not needed.
- (D5) A part A^1 is a *piece* of a whole B iff it is not reciprocally dependent on other parts $A^2 \dots A^n$ of B . (Instead of Husserl's term "piece" I will speak of *independent* or *separable* or *proper part*.)
- (D6) A part A^1 is an *abstract moment* of a whole B iff it is reciprocally dependent on some other part A^2 of B . Again it is left open whether A^1 is reciprocally dependent on any further $A^3 \dots A^n$ or not. (In German, "*das* Moment," neuter, means *dependent part*, contrary to "*der* Moment," masculine, which means *temporal instance*, so "abstract moment" does not refer to a temporal instant here.)

It should be noted that the suggested definition of *whole* (D4) comprises simple wholes that consist exclusively of reciprocally dependent parts (such as a sinusoidal sound) as well as complex wholes (higher order gestalts), which are Humean complex perceptions that have proper, separable parts. Husserl's definitions of wholes and parts can be applied to justify Hume as making use of both the Separability Principle and distinctions of reason without inconsistency. While the Separability Principle's scope comprises wholes and proper (independent, *distinguishable*, and *separable*) parts, the distinctions of reason are applied to apprehend dependent parts exclusively. The wholes and independent parts apprehended by the Separability Principle are different, distinguishable, and separable units. Thus they are proper parts according to D5. The aspects emerging from distinctions of reason are not different, but are indistinguishable and inseparable in Hume's senses of these terms; thus they are dependent parts (abstract moments) according to D6. (I will use the Humean *aspect*, Husserl's *abstract moment*, and *dependent part* interchangeably, since the last two are the mereological explicata of the first one.) Consequently there is no inconsistency or restriction concerning Hume's accounts and uses of those two elements of his system. This is why I agree with Garrett's refutation of commentators (Kemp Smith, Mandelbaum, Bricke) who found an alleged inconsistency or restriction of the Separability Principle,²² although I reach this conclusion from different premises. Moreover, since Husserl's basic mereological categories have an empirical "genealogy," i.e., their origin can be tracked down in (pre-predicative) sense experience,²³ this version of mereology may be particularly appropriate to explicate the underpinnings of Hume's view. Moreover, the proposed mereological analysis does not involve the reification of *aspects*, nor does it commit one to a particular epistemological interpretation. My offered explication is independent of one's reading Hume as a phenomenalist,

realist, skeptical realist, and quasi-realist. One can parse a region of phenomena although one cannot give a causal explanation of them, as in the case of Hume's impressions of sensation (T 1.1.2.11, 2.1.1.181; SBN 7f., 275f).

Taking sinusoidal tones as an example of simple wholes: pitch, timbre, loudness, duration (and, I would argue against Hume, localization) are neither—in Hume's terms—different nor distinguishable (as proper parts, respectively) nor separable in imagination. The criterion of simplicity applies to sense perception as well as to imagination. Thus a simple object *A* (for a given subject) will admit of no distinction or separation, no matter whether the subject perceives *A* or imagines *A*. However, it is not left up to imagination which aspects actually constitute the various types of simple perceptions; though imagination may often fail to detect or grasp such aspects (and, of course, imagination is free to combine simples to form whatever complex ideas). Obviously Hume is using a (nominalistic version of the) concept that dependent parts or abstract moments build a whole from which they are not detachable. Abstract moments cannot be grasped by operations of sense perception, let alone as distinct impressions. They are comprehended by a *distinction of reason* exclusively (cf. T 1.1.7.21f.; SBN 24f). Hume explains this "distinction" using his famous example of the globe of white marble. We are not able to separate or distinguish the color from the form. But when we compare this white globe with a black one and a white cube "we find two separate resemblances, in what formerly seem'd, and really is, perfectly inseparable" (T 1.1.7.22; SBN 25). Even though Hume does not give a further explanation of those resemblances, let alone use contemporary terminology, he endorses a concept of separability that can be explicated along the lines of Husserlian formal ontology as presented above (D1–6).²⁴

It is worthwhile to insert a short consideration concerning interpretations of this element of Hume's system and to address one contribution, which is to be vicariously mentioned in this context. Lilly-Marlene Russow, dealing with the question of "how something *simple* can be both similar and different at the same time" concludes that "simple ideas must have multiple qualities, properties, or aspects."²⁵ As an example she refers to saturation, brightness and hue of a particular color patch (which we have classified as abstract moments of a simple color patch above). The possibility of "distinguishing" multiple qualities depends on our ability to draw distinctions of reason. Hence Russow refuses interpretations like Hawkins's that claim that simple perceptions can have only one quality.²⁶ Although Russow does not base her arguments expressly on a theoretical framework of mereological categories, her explication and mine agree about the underlying distinctions and relationships in Hume. Perhaps unsurprisingly many authors who deal with the issue of simplicity, (in)separability, and whole/part relations in Hume, unlike Russow, lack the concept or, rather, category that assumes the key role to solve

the problems with Humean simplicity and (in)separability: the dependent part (abstract moment). As a consequence those commentators tend to presuppose that “distinguishability” of x and y in A necessarily requires that A is complex, x and y being proper parts of A .²⁷ One of the reasons for this view seems to be that many analytic philosophers have been suspicious of the category of abstract moments.²⁸ Another reason might be Hume’s sometimes loose language that has no means to distinguish the underlying mereological categories and relations Hume takes for granted when he differentiates distinguishability according to the Separability Principle from “distinguishing” aspects by means of distinctions of reason. (This is the reason I put “distinguishability” in scare quotes here.) One might wish to refer to the latter sort by some different term, such as *differentiation*. Independent parts then would be *differentiated*, instead of “distinguished,” which might have induced some authors into suspecting incoherencies or restrictions behind Hume’s equivocal terms.

Obviously Hume is aware of the fact that the units he classifies as simple do have a structure, i.e., they are configurations of abstract moments. Probably the expression “abstract moment” would have arisen suspicions in Hume. Arguably he seems to recognize, at least implicitly, a notion of whole that is more than a mere “collection of particular qualities” (T 1.1.6.16; SBN 16). Where Hume is concerned with rejecting the traditional concept of substance he offers a mere collection; when he is concerned with simple wholes he rightly claims the inseparability of the parts, thereby implicitly acknowledging the dependencies that make up a *structure* from the inseparable parts. This structure is more than a mere collection. Hume could accept the concept of whole as defined in (D4), as a co-existence of parts or moments and the dependencies existing between them, without calling for any Platonic entities. This kind of whole needs no suppositious “unknown *something*” (T 1.1.6.16; SBN 16) in which the parts and moments are supposed to inhere. (In fact this concept of whole is the phenomenological substitute for the traditional concept of substance.) Thus, in spite of its mereological structure a *perceptual unit* is simple for a given subject if it is impossible for the subject to distinguish or separate any proper part of this whole by operations of sense perception or imagination. This is Hume’s criterion of simplicity. It is not vague and it is in accord with a proper understanding of the constituents or dimensions of the basic units of human sense perception. Complex wholes can be distinguished from these simples because complex wholes have independent, separable parts.

While this criterion is well-defined theoretically, does it run into obstacles practically? The simplicity of perceptions will depend on the actual (even momentary) perceptual abilities and the “high-resolution” capability of the (auditory, visual etc.) imagery of a given subject. But this does not necessarily lead to insurmountable difficulties, as certain methods in psychophysics can show. For

example, in audiometry generally the standardized sound pressure level scale, the decibel scale, is used (dB SPL). This scale, known from lists of typical loudness of environmental noises, is commonly related to a reference intensity of 20 μ Pa (micropascal) or 0 dB SPL, respectively. This reference is chosen arbitrarily, though it is close to the average human auditory threshold for a 1000 Hertz sinusoid. But it is also possible to choose as a reference intensity the auditory threshold of a single subject for a particular sound being used in an individual evaluation. A sound level thus specified, using a "subjective" reference level, "is referred to as a sensation level (SL). . . . The physical intensity corresponding to a given sensation level will, of course, differ from subject to subject and from sound to sound."²⁹ If psychophysics works with evaluations based on individual thresholds, why should not philosophy admit individual "simplicity thresholds"? So, while Hume's concept of simple perceptions can be discharged of being vague or severely impracticable the question remains, however, whether there are, for instance, sounds that are simple for every listener? In fact there are quite a few universally simple sounds, for example, sinusoids such as "beeps" from computers or wrist watches, single steady state vowels or voiceless fricatives like [f], [s], though there are not too many simple types (the tokens are frequent, as in speech) and the majority of simples is holistically perceived as parts of phonetic or musical patterns. Hume's criterion works and is confirmed by these exemplifications.

One has to mention Marina Frasca-Spada's interesting genetic interpretation of simple impressions in this context. Frasca-Spada too resists the tempting minima reading, which she characterizes as "literally acceptable, but . . . not unproblematic." According to her interpretation Hume's conception of simple impressions is intended rather to reflect the "contact with an object before the distinctions of judgement have articulated the world of experience," to the "initial stages of perceptual acquaintance with the world," and the "simplicity of this simple impression lies in its coming before the perceiver has learned how to complicate it."³⁰ I agree that there is an enormous number of perceptions that for a subject are initially simple and, during his cognitive development, become "complicated," or more and more articulated by the developing faculties of perceiving and judging. However I would maintain that there is still a host of perceptions that remain simple throughout our whole lifespan. For instance, a sinusoidal cannot become complex for a subject, even if the subject has learned to complicate this object by acoustic statements. Further, Frasca-Spada refers to Hume's distinction of reason to illustrate the "complication" through the perceiver and the resulting loss of instantaneous immediacy. Does Frasca-Spada imply that distinctions of reason make simple perceptions complex? In this case I would contradict her, for reasons given above, where I argue that the Principle of Separation concerns distinctions of proper parts exclusively while distinctions of reason (or *differentiations* of

reason, one might prefer to say to forestall equivocation) relate to inseparable, dependent parts only.

We must consider an important possible objection to the concept of simple wholes now. One could argue that a simple whole like a red square or a sinusoidal (*pure*) tone can be divided into arbitrary segments or phases. What happens to the whole, however, when you bisect a square and take away one half of it, or 500 milliseconds (ms) of a 1000 ms sound, respectively? The figure of the square is destroyed. There is a new simple perception, namely a rectangular or triangular red figure, which is of half the extension and has a different gestalt. If you cut away a portion of a (sc. unicolored, plain) figure, the figure ceases to exist. Similarly, a 500 ms sound is not a 1000 ms sound, which you can verify in listening to—or imagining auditorily—any melody in which a 1000 ms sinusoidal tone is replaced by a 500 ms sinusoid. Even more striking is the following case: when the duration of sounds is reduced dramatically, the salient pitch decreases. For instance, very short sinusoidal tones “loose” their clear pitch and change their timbre; they become “click” sounds.³¹ Equally, when you do not actually take away a part of a whole but only imagine divisions in plain surfaces, tones etc., Husserl observes, “such imaginative intrusions do not leave our original content unaltered. The complex, discontinuously fragmented content we now have is not the same as the original, quite single, inwardly undivided one.”³²

There is a further implication of the above objection however. If one divides the simple whole until one reaches the threshold of perceivability of the minute segments, one reaches the level of just noticeable minima sensibilia. This possible segmenting or fragmentation of “plain” simples into minute atoms could be used to buttress the minima reading, which is corroborated by Hume’s statements in Part 2 of the first Book of the *Treatise*. It is tempting to generalize Hume’s concept of “perfectly simple and indivisible” (T 1.2.1.23; SBN 27) ideas in T 1.2 (and T 1.4.4.) to make it apply to all kinds of simple perceptions. In anticipation of the discussions of minimalist views below (part V and VI), the idea to resolve apparent incoherencies can be outlined as follows: minimal sensibles such as the colored points Hume refers to in Part 2 of Book 1 of the *Treatise* are not the principal units the subject employs to develop the idea of space. The impressions on which we rely in navigating through our environments and in our everyday activities, and from which we derive our ideas of space and time are mesoscopic rather than “impressions of atoms or corpuscles” (T 1.2.3.30; SBN 38). Generally we perceive complex and simple mesoscopic perceptions. The term *mesoscopic* is used here as follows: first, there is a quantitative criterion of being mesoscopic. I refer to ecological psychologists’ emphasis on a certain terrestrial level the world can be analyzed at: “There is physical structure on the scale of millimicrons at one extreme and on the scale of light years at another. But surely the appropriate scale for animals is

the intermediate one of millimeters to kilometers, and it is appropriate because the world and the animal are then comparable.”³³ Further there is an additional relational criterion: a perception at the intermediate scale—of intermodally perceived particulars like apples, cars, or of monomodal percepts such as color patch—is typically perceived as a whole against a perceptual background or as contrasting with other percepts. A minimum visibilium out of the enormous amount of visual minima that compose this white sheet of paper is not perceivable against a background because it does not stand out against its “neighbors,” while the just noticeable ink spot does. But even though isolated minima are untypical members I propose to treat them as members of the class of mesoscopic objects too. Isolated minima are the smallest perceivable, simple mesoscopic percepts. Thus minima sensibilia form a subset of mesoscopic simple objects. Even though boundaries are fuzzy, there is an overwhelming host of clear members and clear nonmembers of the class of mesoscopic objects (perceptions). Perhaps we should think of atomic (minimal) simple and ordinary mesoscopic simple perceptions as being arranged along a continuum (for each sense modality, respectively), with the atomic perceptions at one end of the continuum, constituting a particular class, and determined by perceivability thresholds, and the ordinary simples covering a far greater range, determinable by simplicity thresholds. This view of minima as a subset of simples accommodates Hume’s view since I take Hume to mean that all minima sensibilia are simple while not all simples are minima, and it offers the opportunity to integrate a limited minimalist view into the proposed alternative interpretation.

We have not yet, however, answered the question of whether there are discrepancies between the simplicity of visual perceptions and perceptions of the other sense modalities. The former considerations and examples have shown that visual as well as auditory elementary perceptions are analyzable into abstract moments. Does this hold for other senses, too? When we palpate a cube of marble (one of Hume’s examples) we apprehend a complex tactile perception because the cube has several sides and our hand has many parts. But when we touch only one side of it with one finger-tip without moving the finger there is no longer a complex perception but a simple one, which is very similar to simple auditory and visual basic units. This tactile impression can be described at least by the following abstract moments: (1) a degree of solidity, (2) a degree of temperature, (3) the surface conditions (texture), and (4) a certain spatial extension (of the fingertip). Texture, extension, and the degrees of solidity and temperature are abstract moments analogous to timbre, pitch, loudness, etc. Further, the abstract moments of a touch are dependent on one another in the same way that the auditory abstract moments are. For we cannot feel solidity without temperature, texture, and extension; nor temperature without solidity, texture, and extension. It is worth

noting that this is compatible with Hume's statement that impressions of touch are simple except with regard to their extension (T 1.4.4.152; SBN 230f), if Hume assumed the standard situation when we touch with our whole hand or at least with more than one finger-tip, and thereby perceive the complex tactile gestalt of a cube. (Otherwise, if he refers to the atomic composition, there is not necessarily a contradiction to the mereological explanation of simples, as has been indicated one paragraph above.)

The structure of simple smells is probably to be explained in a like manner, though there still might be no common consent as regards to the dimensions into which smells are to be analyzed. There seem to be at least the abstract moments ("resemblances") of type, intensity, and temporal extension.

Thus we are entitled to claim: Hume's criterion of simplicity of external perceptions is sufficiently clear; its scope includes all senses since there are no discrepancies between the sense modalities, which would call for qualifications of the underlying mereological explanation as one proceeds to the other sense modalities. At least there is no discrepancy between seeing and the other predominant senses, i.e., touch and hearing. But what about "secondary" impressions?

IV

At least Hume himself seems not to come across discrepancies or obstacles when proceeding to the passions. As the quotations at the beginning of part III show, he takes it for granted that passions like pride and humility, love and hatred, grief and joy are simple impressions (taking for granted that indefinability of impressions implies their simplicity according to Hume) (T 2.1.2.182; SBN 277; cf. also T 2.2.1.214, 2.3.1.257; SBN 329, 399). This simplicity, as is the case with the impressions of the senses, does not rule out discerning abstract moments of a simple passion however. One of those moments is mentioned by Hume immediately after stating their simplicity, namely the "encrease or diminution" (T 2.1.2.182; SBN 277) of passions; in other words, a certain *degree* (T 2.1.2.182; SBN 278 et pass.) of a passion is always excited. Just as pitch or loudness are dependent parts of external impressions, the degree of a passion is a dependent part, belonging to a number of further reciprocally dependent parts constituting a passion. Again, Hume does not present an exhaustive list or detailed analysis of the parts of simple passions. But his investigations provide us with some valuable details.

Into which *moments* are passions themselves to be analyzed? One component is their degree, as we have just seen. There is another component, at least implicitly referred to by Hume, namely the temporal extension or duration of a passion. This becomes evident from all observations concerning the increase, pitch, diminution, or gradual decay of passions. Further, there is a dimension that is so obvious that

Hume might have thought it not worth mentioning: every passion must have, metaphorically speaking, a *timbre*, i.e., a component that gives the passion its particular character, which serves to distinguish a passion from any other passion which is of the same degree and duration. (In like manner we distinguish sounds from one another that are of the same pitch, loudness, and duration.) Traditional, introspective taxonomies of the passions (or “emotions”) are heavily based on this distinctive or generic dimension, the *quality*, which makes a passion a perception of grief and not of joy etc.³⁴ Astonishingly, we have no customary words in ordinary language to denote this salient dimension of emotions in everyday language. We simply identify a passion with its quality, and so speak of “pride,” “humility,” and so forth.

Do these three parts suffice to determine the mereological structure of simple passions and are they all reciprocally dependent parts? We just have to try to question whether or not their emotional quality can be isolated from degree and duration, or degree from quality and duration, or duration from quality and degree. The answer to each of these questions is “no.” Thus we have to classify the dimensions or parts of passions as reciprocally dependent parts. This provisional result already exceeds Hume’s own statements, as he does not determine these dependencies. And we may now ask further if a simple passion is completely characterizable by means of these three parts. To answer this question fully we would have to go beyond Hume’s own observations and statements. However, here too, we find hints in Hume’s text. Thus, drawing a metaphor from the musical sphere Hume remarks that:

[I]f we consider the human mind, we shall find, that with regard to the passions, 'tis not of the nature of a wind-instrument of music, which in running over all the notes immediately loses the sound after the breath ceases; but rather resembles a string-instrument, where after each stroke the vibrations still retain some sound, which gradually and insensibly decays. (T 2.3.9.282; SBN 440f.)

Hume refers to different types of simple auditory gestalts, namely the typical shape of single sounds produced by wind instruments with a short decay and a typical profile of sounds produced by strings with a longer decay phase. Obviously, duration is merely temporal extension, and it does not suffice to grasp the structures of the whole range of simple passions. Many emotions have typical temporal profiles or patterns, or as we might also say, *gestalts*. Take for instance passions associated with being surprised or startled, which have a very short rise time, a short steady state, and a longer decay. Compare them with anger or rage, which can rise over a long time, remain in a short or longer steady state, and perhaps vanish in a sudden

because there is a new cause inducing relief and happiness about the instantaneous change of the situation which had one exasperated. Does this gestalt component of passions contradict either Hume's conception of simplicity or his observations on passions? There is no contradiction, on the contrary, traces of the gestalt account can be found in Hume's theory of the passions, as has been indicated. Further, a similar argument against dividing a simple whole (i.e., a simple primary impression) into arbitrary segments or phases can be urged against the arbitrary imaginative segmentation of simple passions into segments or "imagining away" some phase which is essential to the passion as a whole, or gestalt in this case. Anger develops over some time and decreases over some time. Nobody is instantaneously in a rage without getting upset by the cause that has to be perceived by the subject. If you imagine rage without rise time and decay you thereby destroy the particular profile of the passion of anger. So you can neither take away the phase of rise time nor the phase of decay. *Mutatis mutandis* this holds for other passions too. (This argument is pertinent to our issue independent of the overall account of emotions given, i.e., emotions understood more functionally or, rather, qualitatively.) As is the case with sense impressions, not all simple passions need to have such a profile (gestalt); there are wholes, which are no gestalts in the pregnant sense of this term, such as sinusoids. A question left open is the merging of passions. Blending and transitory simple impressions can be explicated in a formal ontological framework including continua and overlapping of wholes and parts. Hence this too is no obstacle to a comprehensive account of the mereological structure of passions.

So, obviously, simple passions are not sensible minima according to Hume, nor does he conceive of passions as compounded from "*minimi affectus*." Consequently, a comprehensive explication of Hume's concept of perceptual simplicity that does not ignore his theory of passions will generally avoid identifying simples with minima. Hume's identification of simples with minima in Part 2 of Book 1 of the *Treatise* is a special case that can be explained by the proposed view that isolated minima are the smallest possible simples. Outside Part 2 of Book 1, Hume hardly relies on the subclass of minima (an exception is T 1.4.4).

V

So far, Hume's conception of simple—primary and secondary—perceptions could be shown to be coherent and viable. Interestingly, one can find in the *Treatise* a hidden concept of spatial and temporal gestalt. Hume introduces this gestalt analogue in the course of his theory of our ideas of space and time in Part 2 of Book 1 of the *Treatise*. I begin with the case of temporal successive transposable order. I will cite from a well-known passage and then offer my reading that has important implications with respect to Hume's allegedly untenable atomism (see VI below).

Thereafter I will argue that there is a correspondent analogue to an intermodal spatial gestalt concept underlying Hume's genetic explanation of extension.

Five notes play'd on a flute give us the impression and idea of time; tho' time be not a sixth impression, which presents itself to the hearing or any other of the senses. Nor is it a sixth impression, which the mind by reflection finds in itself. ... [H]ere it [the mind] only takes notice of the *manner*, in which the different sounds make their appearance; and that it may afterwards consider without considering these particular sounds, but may conjoin it with any other objects. The ideas of some objects it certainly must have, nor is it possible for it without these ideas ever to arrive at any conception of time; which since it appears not as any primary distinct impression, can plainly be nothing but different ideas, or impressions, or objects *dispos'd in a certain manner*, that is, succeeding each other. (T 1.2.3.29; SBN 36f., the latter italics are mine.)

Why is time not a perception distinguishable from the five notes of the flute? Because, Hume says, we can exclusively comprehend it by focusing on the certain manner the notes succeed one after another. Hume does not form explicitly the concept of *temporal gestalt* but the objects' being disposed in a certain (successive) manner comes very near to what later will be classified as a temporal gestalt.³⁵ It is important to note that he observes that such a manner of succession is recognized in successions of "any other objects." In other words, the temporal pattern is not only transposable into other keys but is still recognizable when played by other instruments or appears with perceptions of other sense modalities such as a sequence of light signals or vibrations. (And we may add, as a sequence of any imagined objects.) We might call this, with due academic caution, a "Humean gestalt of successive (intermodal) order of perceptions."

Many readers might object to my explanation of Hume's simple perceptions having spatial extension, since in part 2 of Book 1 of the *Treatise* Hume proceeds from the premise that an extended object is a "composition of colour'd points," which are not extended, and that the idea of extension is founded on the "disposition of points, or manner of appearance" (T 1.2.3.28; SBN 34). There seems to be an equivocation of *composition*, as well as of *part*, however. In one sense of the term, *composition* refers to arrays of minimal sensibles (Garrett's impression-tokens) that build up (*compose*) mesoscopic perceptual units. The subject does not operate with these minimal units in ordinary sense perception, at least most of the time, when she navigates through the world of objects and engages in everyday activities or daydreams. The minima visibilia are thought to constitute, for instance, a plain, single hue of color. The latter might in turn be a dependent part

of a simple perception, a color patch, which belongs to the range of mesoscopic, ordinary units the subject apprehends. *Part*, in turn, refers to separable atomic parts, inseparable dependent parts (of simple wholes), or separable independent parts of complex wholes.

I think we need not assume a *double standard*³⁶ of simplicity in Hume's system if we understand simplicity in the manner I have proposed and if we distinguish two kinds of composition, or compoundness, *unobservable* and *observable* (or patent) compoundness. Hume seems to make this distinction implicitly, though he refers to both kinds by the same terms (i.e., "compound" and "composition"). Let's look at an example to explicate the difference: consider the following monosyllabic words "read" [ri:d] and "red" [red]. A hearer perceives phonetic realizations of both words as wholes (or *gestalts*) respectively. But having learned (mostly by writing) to segment a syllable by listening analytically, we can distinguish the components of the syllables, i.e., the single speech sounds, [r], [i:], [e] and [d]. At least [r], [i:] and [e] are, according to the reading offered here, *simple* impressions. However the acoustic "atoms" of any of these single simple impressions, all single frequencies composing the single speech sounds, are much smaller, are similar to Hume's visual and tactile minima, and cannot be perceived by listeners. Consequently (literate) hearers can, within limits, observe the patent composition of word *gestalts* like [ri:d] or [red] while they miss the unobservable composition of the single sounds such as [r], [i:] etc. Likewise you cannot observe the compoundness (the visual minima) of the printed letter <s>, while you can observe the composition of the word <simple> from single letters.

Turning to space now it is possible to support a *gestalt* reading of Hume's explanation of our idea of space, similar to the proposed reading of Hume's analysis of time at T 1.2.3.29 (SBN 36f.). Hume starts from looking at a table, which is a complex *gestalt*. Now, on the one hand, Hume explains the derivation of our idea of extension as enabled by the resemblance between all dispositions of colored points we experience, thereby developing the idea of visual extension. On the other hand, Hume speaks of the disposition of parts when he notes that the resemblance is transferred beyond one sense modality, namely from vision to touch. He states, "the impressions of touch are found to be similar to those of sight in the disposition of their parts" (T 1.2.3.28; SBN 34). But does Hume actually mean that there is a similarity between visual and tactile minima? It is arguable that, instead, he thinks of intermodal similarity of mesoscopic spatial figures or *gestalts* (Hume's *manner* or *disposition*) of vision to those of touch, tacitly moving from minima to mesoscopic perceptions here, just as the tones of the flute, which *appear*, are not temporal minima but extended temporal wholes. Further, Hume is clear that our idea of space is received "from the disposition of visible and tangible objects" (T 1.2.3.28; SBN 35), thus space is exclusively visuotactile

according to Hume. The parts of the complex gestalt of the table, i.e., the simple impressions the complex table perception is patently composed of, can only be seen *and* palpated—and thereby “found to be similar.” This means that Hume refers to intermodal gestalts to explain our “derivation” of extension and space. The minima sensibilia are called for explaining how the simple (proper) parts of complex perceptions are constituted.

Moreover we may get a hint from Hume's wordings here. Interestingly, he says, “The ideas of space and time are . . . merely those of the manner or order, in which objects exist” (T 1.2.4.31; SBN 39f.) Obviously “objects” does not refer to minima sensibilia. So, does Hume “carelessly” move between the two subclasses of simples here? What Hume seems to say is that when we experience and compare the visual and tactile parts of a spatiotemporal object we do not use minima but mesoscopic impressions or their aspects (apprehended by perfectly habituated distinctions of reason).

Hume's (ordinary) simple perceptions are composed of perceptual dimensions, which I have explicated along the lines of a formal ontology as abstract moments. There is a core structure of every class of simple perceptions (of one sense modality respectively), namely a particular number of abstract moments that are reciprocally dependent on one another. Complex perceptions in turn are composed of simple ones. But is the latter sentence really a clear or sufficient explanation? It is remarkable that while there is disagreement about the criteria of simplicity, nobody ever seems to have questioned the concept of *complexity* of perceptions. It seems uncontroversial that a proper interpretation of the simple/complex distinction only requires an explanation of what Hume meant by simplicity, or what *is* simplicity, respectively. But is complexity really understood sufficiently? The reading offered here renders this concept very “complex” since there are many ways complex perceptions can be composed of simple ones. For, since I am not concerned with Hume's theory of complex perceptions, I can only give some hints. As a matter of fact there are many types of complexity which are dependent on different criteria, for instance, gestalts belonging to one or more sense modalities; gestalts having overlapping or discrete parts, combinations of these, and many more. How is this to be applied to Hume's examples? The apple Hume refers to at T 1.1.1. (SBN 2) is an intermodal complex perception. Hume calls the particular perceptions belonging to one sense modality “parts” and gives as examples “colour, taste, and smell.” (What is meant by “colour” is not so clear, since Hume refers either to simple visual perceptions or to the abstract moment of hue by the term “colour” throughout the *Treatise*.) These parts are not overlapping, as are hue, brightness, figure, and extension. They belong to different sense modalities. We can read Hume here as stating that an intermodally perceived object is a complex perception. For instance the complex perception of the five notes played by a flute is very different

from this. The notes build a temporal complex, which can be broken up in proper parts belonging to one and the same sense modality. For instance, one could play or imagine the single notes isolated without rhythmic coherence. Further, the rhythmic gestalt of the notes is transferable into other sense modalities. It would be an interesting and probably rewarding task to develop a similar explication of the theory of complexity implicitly operative in Hume's text.

VI

After these exploratory considerations I return to the objections and vindications of Hume's division, which I have presented at the beginning (II). Relying on the previous considerations I will shortly comment on most of the authors cited above.

Stroud holds that using Hume's ("vague") criterion of simplicity, we could classify a single color as complex because the color has a particular hue and intensity, "both of which can be distinguished from each other. Similarly, a particular note sounded on a piano would seem to give us a complex impression, since its pitch is something different from its timbre."³⁷ Remember Hume's example of the globe of white marble: Hume explains that it is not possible to *distinguish* the color from the form (though we might say they can be *differentiated*). He could as well have used hue and intensity, or pitch and timbre since they are in the same manner indistinguishable. And they stay indistinguishable even when we learn to "view them in different aspects" (T 1.1.7.22; SBN 25). Thus, it is evident that Stroud's reading contradicts Hume's conception and so is to be rejected.

As Baillie concedes a certain plausibility to simple visual perceptions, he consequently could concede the same plausibility to simple auditory and tactile perceptions, and probably to olfactory and gustatory perceptions. The preceding explorations did not confirm a possible discrepancy between the visual and the other sense modalities.

Baier's interpretation requires some more detailed replies. First, there is one statement of hers that can be challenged on the basis of the reading offered above. Rightly stressing the resemblances and relations among perceptions, Baier says "Hume continues to treat particular pleasures and colors as "simples," even when he has granted that we can sometimes derive one from others, and can "intuit" their resemblances and differences from each other. This shows the perfunctoriness of his use of the simple/complex distinction, and the relativity of that very complex concept, the simple."³⁸ The resemblances or relations of perceptions to other perceptions do not contradict their mereologically definable simplicity that Hume presupposes, nor does the derivability of missing shades (timbres, pitches, and itches, one could add). (See also the discussion of Russow, below.) Thus, Hume's

acknowledgement of relations among perceptions does not indicate a perfunctoriness of the distinction nor a relativity of simplicity. As far as simplicity depends on limits of imagination and individual thresholds in perceptual discrimination (as has been shown above) it is "relative." Indeed simplicity is a complex concept; but, for every sense modality, we are theoretically able to determine the necessary and sufficient number of abstract moments composing the simple units of the modality respectively, thereby coming to grips with the complexity of simplicity. Further, there is another proposition of Baier's that may be called into question for similar reasons. "Her smile' is for him [Hume] officially a very complex idea, . . . while the simpler ideas will be of her face color, her mouth size, shape and so on."³⁹ What does "simpler" mean: still "complex, of a lower order" or simply "simple"? Color, size, and shape cannot be simple impressions for Hume since they are not independent parts but abstract moments, which are not detachable and hence cannot build distinct perceptions existing on their own. Finally, if my reading is sound, Baier's recourse to linguistic customs and categories guiding the distinctions of reason could be dispensed with as a potential defense that is farther from Hume than the account offered here. Hume's concept of distinction of reason is based on the mereological structures prior to language. Even though it is words that often draw our attention to nonlinguistic phenomena in everyday life as well as in the science of man, words are of no use if one lacks the (nonlinguistic, pre-predicative) operations to apprehend the aspect or dimension an expression denotes, such as the ability to hear partial tones in a piano note.

The preceding reflections confirm Waxman's interpretation concerning his claim that Hume's criterion of simplicity is well-defined and Hume's division among the sophisticated approaches to this subject. However, I do not consent to his further interpretation (in the first place his minima reading) for reasons partly explained above. I will add textual evidence and several arguments in a moment.

There are several points of Garrett's reading that I agree with: for example, that Hume did not take the simple/complex distinction from Locke and that there is no restriction imposed on the Separability Principle by the aspects apprehended by distinctions of reason. But I reach these conclusions from different premises, and there are important points I do not agree with. Garrett exclusively relies on Hume's conception of "perfectly simple and indivisible" (T 1.2.1.23; SBN 27) ideas (atoms, perceptual minima) that compose visual and tactile perceptions. According to his reading, combinations (arrays) of visual and tactile minimal impression-tokens of two impression-types constitute complex perceptions. The considerations in parts III-V have shown that the issue of perceptual simplicity can be alternatively answered by focusing on the underlying mereological categories. Garrett's interpretation, which is limited to visual and tactile minima, says hardly anything about other impression-types; given what Hume says about simple passions neither he

nor, I assume, Garrett means to suggest that other types or, perhaps, all simple perceptions could be understood by following the case of visual and tactile minima. Garrett's type/token distinction still applies to the mereological categories and perceptual units. While types of abstract moments define a particular class of auditory, visual, or tactile units such as the type "Middle C played by a piano," it is tokens of those abstract moments that are apprehensible in a particular sound or visual object etc., such as in the event of this Middle C of the piano I am playing right now. But the tokens need not be understood as minima sensibilia; outside of Hume's philosophy of space and time, perceptions of mesoscopic objects provide a more adequate paradigm of simple perceptions. So there are some issues that Garrett's view does not address or cannot give an adequate explanation for. As just mentioned, Garrett confines his interpretation to visual and tactile minima, and neither Garrett nor Waxman considers sense modalities other than vision and touch. My alternative reading offers the possibility to incorporate impressions of other sense modalities and passions too. Moreover there are several passages in the *Treatise* that challenge minimalist views as proposed by Garrett and Waxman. Thus, in addition to the arguments criticizing the minima reading presented above (III-V) I will provide further textual evidence from Hume's *Treatise* now.

First, granted that memory and imagination "borrow their simple ideas from the impressions" (T 1.3.5.59; SBN 85) and that "all simple ideas may be separated by the imagination, and may be united again in what form it pleases" (T 1.1.4.12; SBN 10), then if "simple" referred to minima sensibilia, as a consequence our imagination should be separating, joining, mixing, and varying perceptual minima. In other words, imaginary visual minima should picture imaginary scenes and objects and imaginary auditory minima should imagine a melody, a voice, or a roll of thunder. However, imagination and memory just do not work that way. The units imagination uses as building material are ideas of mesoscopic simples (single sounds, apples etc.) and of their properties or aspects (such as timbre, pitch, hue, brightness, figure).

Further, we can quote what Hume says about memory connecting simple ideas, as opposed to imagination: "The chief exercise of the memory is not to preserve the simple ideas, but their order and position" (T 1.1.3.12; SBN 9). Obviously Hume did not mean that memory preserves the order and position of ideas of minima sensibilia since he is concerned with the (dis)order of "events" a historian narrates, and the "recollection of . . . places and persons, with which we were formerly acquainted" (ibid) in this context. Similarly, when Hume characterizes the laws of association as "principles of union or cohesion among our simple ideas," which produce "those complex ideas, which are the common subjects of our thoughts and reasoning [i.e., relations, modes, and substances], and generally arise from some principle of union among our simple ideas" (T 1.1.4.14; SBN 12, 13), it is very

improbable that Hume has (ideas of) minimal sensibles in mind. It is hardly probable that Hume means to say, for example, that a relation of cause and effect holds between the minima sensibilia of perceptions. The same goes for resemblance.

It is even more implausible that passions need to be just noticeable, *minimi affectus* so to speak, to be simple, as should have become clear (cf. IV above). In addition we may point to the fact that Hume is well aware of the existence of many long lasting passions—and he states that, for instance, a desire is indivisible but at the same time unlike a mathematical point (T 1.4.5.154, SBN 235.). This shows that Hume conceives of passions as temporally extended, gestalt-like wholes that are nevertheless indivisible.

A further argument that challenges the minima reading can be drawn from Hume's observation of correspondences between different languages by the fact that "nature in a manner pointing out to every one those simple ideas, which are most proper to be united into a complex one. The qualities, from which this association arises . . . are three, *viz.* RESEMBLANCE, CONTIGUITY in time or place, and CAUSE AND EFFECT" (T 1.1.4.13; SBN 10f). These simple ideas are not minima but parts of mesoscopic objects including blood relations, apartments, and wounds. What might *prima facie* look like an incidental remark may indicate a systematic thought in Hume: most simple perceptions are not atomic units which are united into complex ones exclusively by contingent operations of single minds, but nature herself occasions us to build a great stock of common complex perceptions, namely our everyday objects we all deal with, and the ideas with which we operate.

Further, the simple ideas which compose a substance are obviously not ideas derived from minima, and neither are the "simple ideas of which modes are formed" (T 1.1.6.16; SBN 17). These are further textual warrants that contradict an identification of *all* simple perceptions and minima sensibilia. The minima interpretation is clearly corroborated by Hume's (partly mitigated) atomistic philosophy of time and space. The apparent contradictions emerging from different uses of *simple* (Part 2 of Book 1 versus the remainder of the *Treatise*) can be allayed, or even harmonized, when one views minima to be the smallest possible simple perceptions, thereby integrating this part of Hume's system (and the corresponding interpretations) into the remainder of the *Treatise* (with the reading I propose).

To sum up the virtues of the reading offered here: (1) This interpretation is based on a clear, well-defined and practicable formal ontological theory; (2) it embraces perceptions of sense modalities other than vision and touch, moreover, it includes passions and the simple ideas of memory and imagination, that can all be explained according to my reading; thus the range of *explicata* is more comprehensive; (3) it explicates minima as a subset of simples and thereby allays the apparent incompatibility of Hume's use of simple minima (mainly in Part 2 of the first Book of the *Treatise*) and his general concept of simple perceptions used

throughout the *Treatise*; and finally (4) it is confirmed by experimental research in sense perception and by “experiments” Hume’s readers are customarily asked to make and evaluate.

Thus, we can distinguish at least five perspectives under which perceptions are analyzable: (1) the simple/complex division according to the criterion of simplicity, (2) the dependent parts constituting simple wholes vs. independent, separable parts constituting complex wholes, (3) atomic vs. mesoscopic simples, (4) the “manner” or “disposition” of perceptions whose essential role for spatiotemporal perception Hume begins to reveal, (5) the type/token distinction.

VII

Finally I would like to indicate some implications of my account of Hume’s theory of simple perceptions and his analogue to certain gestalt concepts. I propose to characterize Hume’s position as a *mitigated atomism*. Surely, Hume holds a version of atomism, but he can be defended against the strong objections that have been urged against atomistic psychology primarily by Gestaltists or philosophers drawing on Gestalt psychology such as Merleau-Ponty. It should not irritate anyone that Hume is now defended against a development whose leading concept, in this paper, has been used to interpret him. This is due to the simple fact that advocates of Gestaltism have misrepresented Hume. Moreover the “Gestalt” elements in Hume’s philosophy of space and time are masked by his “simple principle, *that our ideas of them [space and time] are compounded of parts, which are indivisible*” (T 1.2.3.30; SBN 38).

Probably it is surprising for many readers to see that the most substantial objections against atomistic psychology do not apply to Hume. David Katz states in his *Gestaltpsychologie* that “von Ehrenfels’ considerations on transposeability of melodies were part and parcel of the Gestaltists’ most compelling arguments applied in refuting the psychological atomistic view right from the beginning.”⁴⁰ Hume’s “gestalt” of successive (intermodal) order of perceptions (see section V above) clearly defies this argument. Further Katz explains that rhythm is of eminent importance for the recognition of melody since we can even reidentify a melody when only the rhythm (without pitches) is presented to us. Given what Hume says, it is very likely that Hume was fully aware of this. And Hume’s theory has more that is contrary to any kind of strict atomism. For instance his gestalt analogue and several other observations and statements clearly show that Hume would not uphold the so-called *constancy hypothesis*, which Gestaltists have reproached many traditional psychologists with. The constancy hypothesis “consists in the thesis that what is given in sensation is determined exclusively by the relevant objective conditions and that, from occasion to occasion, qualitatively similar

objective conditions give rise to qualitatively similar sensations.”⁴¹ Katz states the constancy hypothesis as follows:

The theory of pure sensations [supported for instance by Helmholtz or Mach] expresses the view that there exists a strictly *constant* assignment of *local* stimuli to the conscious percepts. The experience of an oval shape corresponds to the oval retinal image. It has become customary to call this hypothesis of atomistic psychology *constancy hypothesis*.⁴²

As a consequence, we may expect an atomistic theory to claim that qualitatively similar (or type-identical) perceptions $p_{1\dots n}$ are caused by qualitatively similar stimuli $s_{1\dots n}$. Hence atomistic thinkers cannot give a proper explanation of cases like the transposable tunes of the flute. When the melody is transposed into another key all stimuli are qualitatively different, but still the same (type-identical) melody is perceived. When there is a delay between the first presentation and the second (the transposed melody), most listeners would not even notice the transposition. Hume is very near to giving a proper explanation of phenomena like these, and thus defies the constancy hypothesis. There are further statements that show Hume's remoteness from a strict atomism. For example, Hume is well aware of the existence and importance of perceptual constancies, for instance, that we “correct the momentary appearances of things” (T 3.3.1.372; SBN 582) which depend on the “continual fluctuation” (T 3.3.1.371; SBN 581) of our situation with regard to things as well as persons.⁴³ This also contradicts to the constancy hypothesis since often dissimilar stimuli are apprehended as token-identical, unchanging percepts. Consequently the problems of a full-blooded atomism are allayed by Hume's insights. The proposed function of atomic minima as a particular class of mesoscopic perceptions is the key to understanding how the atomistic and the holistic components in Hume's theory need not conflict with one another. For example, when we look at the screens of our computers these two ranges of impressions become evident: we directly perceive mesoscopic perceptions such as icons, written words, and a plain white background. These perceptions, some of which are simple, some of which are patently composed of simples, are in turn (unobservably) composed of pixels, which come close to Hume's “colour'd points.” For Hume, the basic perceptual units we apprehend are no atomistic mythical data, aloof from actual perceiving. We are “immersed” in a world of mesoscopic, commonsensical perceptions all the time. But there are less complex and simple perceptions and the dimensions into which we can parse the simple ones. To do this we need not be experts, for every human being who learns a language has to attend to simples and their abstract moments, though the building blocks of speech perception are syllables. So, a further

implication might be that Hume is not committed to a mythical conception of sense data from which subjects construct their perceptions. Edwin G. Boring, in his authoritative *History of Experimental Psychology* judged Hume's "clear distinction between impressions and ideas" to be Hume's "most important direct contribution to modern psychology."⁴⁴ Today, we may assess Hume's (mostly subterranean) conceptions of simplicity and "manner of appearance" to be of similar importance, albeit rather indirect ones, as they had no effect on modern psychological theories. This however is rather to be attributed to an untenably strict atomistic associationism, which generations of philosophers and psychologists have assigned to Hume.

NOTES

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- 1 Annette C. Baier, *A Progress of Sentiments: Reflections on Hume's Treatise* (Cambridge: Harvard University Press, 1991).
- 2 Marina Frasca-Spada, *Space and the Self in Hume's Treatise* (Cambridge: Cambridge University Press, 1998).
- 3 Don Garrett, *Cognition and Commitment in Hume's Philosophy* (New York: Oxford University Press, 1997).
- 4 David Pears, *Hume's System. An Examination of the First Book of his Treatise* (Oxford: Oxford University Press, 1990).
- 5 Wayne Waxman, *Hume's Theory of Consciousness* (Cambridge: Cambridge University Press, 1994).
- 6 David Hume, *A Treatise of Human Nature*, ed. David Fate Norton and Mary J. Norton (Oxford: Oxford University Press, 2000). The four Arabic numerals following the abbreviation T refer to book, part, section, and page numbers of the Norton and Norton edition of the *Treatise*. Additional page references to the second Selby-Bigge edition of the *Treatise*, ed. L. A. Selby-Bigge, revised by P. H. Nidditch (Oxford: Clarendon Press, 1978), are marked with the abbreviation SBN followed by the page numbers.

7 Cf. Robert Paul Wolff, "Hume's Theory of Mental Activity," *Philosophical Review* 69 (1960): 289–310. Reprinted in *Hume. A Collection of Critical Essays*, ed. V. C. Chappell (New York: Doubleday, 1966), 99–128, 99. (Citations refer to the latter publication.)

8 John Laird, *Hume's Philosophy of Human Nature* (London: Methuen, 1932), 28.

9 Barry Stroud, *Hume* (London: Routledge & Kegan Paul, 1977), 20f.

10 James Baillie, *Hume on Morality* (London, New York: Routledge, 2000), 21.

11 Cf. Baier, 39.

12 Baier, 35.

13 A case in point is Anthony Flew's view. "The original uneasy distinction between simple and complex ideas is replaced by one between indefinable and definable terms." (A. Flew, *Hume's Philosophy of Belief. A Study of his First Inquiry*, 2nd corrected edition [London: Routledge & Kegan Paul, 1966], 29) Aware of the substantial differences between Hume's original intention and the semantic explicatum Flew calls this replacement a *transposition* of genetic, imagist psychology into a sort of logical empiricism. In his 1986 introduction to Hume, Flew still suggests the need of a transposition of Hume's psychological empiricism into what Flew now calls *etymological empiricism* (A. Flew, *David Hume. Philosopher of Moral Science* (Oxford: Blackwell, 1986), chap. 2.1.) "The relevant analogue [to Hume's simple/ complex distinction] would be a distinction between terms which can be defined verbally and terms which can be defined only ostensively" (Flew, *David Hume. Philosopher of Moral Science*, 24).

14 Cf. Baier, 37.

15 David B. Hausman, "Can Hume's use of a simple/complex distinction be made consistent?" *Hume Studies* 14 (1988): 424–8.

16 Waxman, 42.

17 Waxman, 43 (italics Waxman's).

18 Cf. Garrett, 61f.

19 Cf. Garrett's perspicacious analysis of imagination in Hume (Garrett, 11–29, 29).

20 Cf. Edmund Husserl, *Logical Investigations* [hereafter *LI*], two volumes, trans. J. N. Findlay, ed. Dermot Moran (London, New York: Routledge, [1900/01, 1913/21] 2001), Investigation 3, "On the Theory of Wholes and Parts," 2: 1–45.

21 Chap. 5 of volume 2 of *LI* is a "Phenomenological Study of Hume's Theory of Abstraction" (cf. *LI* 1: 289–307).

22 Cf. Garrett, 59f.

23 Cf. in particular Edmund Husserl, *Experience and Judgment. Investigations in a Genealogy of Logic*, trans. J. S. Churchill and K. Ameriks (Evanston: Northwestern University Press, 1973), in particular part 1.

24 In his "Phenomenological Study of Hume's Theory of Abstraction" (*LI*, volume 2, chap. 5) Husserl raises a problem of great interest for our present explication. The

crucial question for Husserl is: Are the abstract moments mere fictions produced by the resemblances, or are they really “in” the objects, as inseparable parts, highlighted by our attention? Husserl proposes two readings of Hume, a radical one that affirms the first of the disjuncts, and a moderate reading that answers in the affirmative the second disjunct. Husserl is concerned with the radical reading exclusively, which he rejects. However, Husserl admits that he is “not really sure” to have “hit off Hume’s own view.” (LI 1: 295) In fact, Husserl might have been strongly influenced by authors whom he calls “Modern Humeans” (LI 1: 294, 302–7) and by the then predominant reading of Hume as a radical sceptic in assigning the radical interpretation to Hume, as Husserl himself is aware of (1: 294). I understand Hume as holding the moderate position, so I dispense with replying to Husserl’s arguments.

25 Lilly-Marlene Russow, “Simple Ideas and Resemblance,” *Philosophical Quarterly* 30 (1980): 342–50, 344 (italics Russow’s).

26 R. J. Hawkins, “Simplicity, Resemblance and Contrariety in Hume’s *Treatise*,” *Philosophical Quarterly* 26 (1976): 24–38.

27 Cf. for instance, John Passmore, *Hume’s Intentions*, 3rd edition. (London: Duckworth, [1952] 1980), 108f.

28 See the discussion in Barry Smith and Kevin Mulligan, “Framework for Formal Ontology,” *Topoi* 2 (1983): 73–85, 78f.

29 Brian Moore, *An Introduction to the Psychology of Hearing*, 3rd edn. (London: Academic Press, 1989), 8f.

30 Frasca-Spada, 181, 182.

31 Cf. A. J. M. Houtsma, T. D. Rossing, and W. M. Wagenaars, *Auditory Demonstrations* (Audio CD: Phillips, 1987), Demonstration 13, “Pitch salience and tone duration,” and booklet, 39f.

32 LI, 1: 300.

33 J. J. Gibson, *The Senses Considered as Perceptual Systems* (London: Allen and Unwin, 1966), 22.

34 I am not going to discuss the question of whether emotions, or “passions” are more appropriately classified by means of a combination of neurophysiological, subjective (experiential, qualitative), and behavioral criteria.

35 Hume’s explanation approximates versions of gestalt theory that define the gestalt quality as a function over the constituent parts (e.g., Wertheimer) and not versions that postulate gestalt qualities to be additional, positive “sensible contents” (like von Ehrenfels) which would contradict Hume’s statements. Concerning the history of gestalt theory see *Foundations of Gestalt Theory*, with Contributions by Christian von Ehrenfels [et al.], ed. Barry Smith (München, Wien: Philosophia, 1988).

36 I am grateful to this journal’s editors and an anonymous referee for having pointed out the importance of this problem to me. I follow them using their expression “double standard.” I am equally grateful to one of the referees for pointing to a related passage in Locke’s *Essay*. We encounter a striking similarity to the equivocation in Hume I stated

above in Locke's treatment of space and duration. Locke classifies space and duration as simple ideas, though at the same time he characterizes them as consisting of parts; parts, however, that "being all of the same kind [Hume's array minimal], and without the mixture of any other *Idea*, hinder them [space and duration] not from having a Place amongst simple *Ideas*," and are "not separable one from another." (John Locke, *An Essay concerning Human Understanding*, ed. P. H. Nidditch (Oxford: Oxford University Press, 1975), II xv 9). In a note to this apparent inconsistency with Locke's definition of simple ideas at II ii 1, it is observed that "composition" is used in two senses, i.e., to denote composition of different ideas or composition of portions of the same kind of objects. (201f.)

37 Stroud, 20f.

38 Baier, 39.

39 Baier, 34.

40 David Katz, *Gestaltpsychologie*. 3rd edn. (Basel, Stuttgart: Schwabe & Co., 1961), 115 (my own trans.).

41 Barry Smith, *Austrian Philosophy. The Legacy of Franz Brentano* (Chicago: Open Court, 1994), 263, n.21. Smith refers to Kurt Koffka's view.

42 Katz, 16 (my trans.).

43 In his second *Enquiry* Hume explains, without using the recent term (*perceptual constancy*), that both in internal and external perception we correct the inequalities and variations of appearances that are caused e.g. by our position with regard to an object (what is nowadays called *egocentric constancies*). Cf. David Hume, *An Enquiry concerning the Principles of Morals* [EPM], ed. Tom L. Beauchamp (Oxford: Oxford University Press, 1998), sec. 5.2 [also in *Enquiries concerning Human Understanding and concerning the Principles of Morals*, ed. L. A. Selby-Bigge, 3rd ed., revised by P. H. Nidditch (Oxford: Clarendon Press, 1975), 227f.] We correct the different sizes of the retinal image that the same object throws on the eye at different distances; similarly we rate the merit of a statesman in correcting the fact that his benevolence may affect us with more or less lively sympathy depending on the historical distance, i.e., our temporal and spatial contiguity or remoteness. In the *Treatise* Hume is concerned with perceptual constancy of size, figure, and color at T 1.4.2.140 (SBN 211). He deals with what we could call *constancy of moral sentiments* and *aesthetic constancy*, respectively, at T 3.3.1.15. (SBN 581f.).

44 Edwin G. Boring, *A History of Experimental Psychology*, 2nd edn. (New York: Appleton-Century-Crofts, 1950), 188.

