

Bolzano and Meinong on chimeras

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Non-existing entities or chimeras are a problem, in the sense that we talk, write and sing about them, as well as reading numerous texts about them, from mythology to mathematics. We understand chimeras, but how can that be, since chimeras do not exist? I argue that chimeras interact with *realia* as objects of communication between utterers or narrators and addressees. There are causal relations between things which do not exist, existing things and our (re)presentations of them and their properties in the world in which we live.

I disagree with Priest (2005)'s reading of Meinong and Priest's 'noneist' view, according to which non-existent objects cannot have existence-entailing properties.¹ Consider the symbolic capital in stock markets and real investments in chimerical interests, investments which result in real profits or losses. Or consider internet games such as the Mafia Wars or Farm-Ville where real players participate in a possible world which has potential or virtual reality. In addition, there are virtual teaching programs where real students study online and get a 'real' education and a valid degree. My point is that today, the boundaries between 'reality' and 'virtual reality' have become very thin and hence the topic of chimeras is quite real. Let me formulate the problem: since there are possible worlds in which there are chimeras, it is possible that there are chimeras.² For chimeras appear in classical Greek literature and mythology – they are cultural phenomena posited or assumed as existing in a certain socio-cultural domain where they are presented and represented, verbally and pictorially. Thus chimeras virtually exist for me in my imagination and become actual in the imaginary world of narrative. If I name it or believe it, I can make it real. At least according to Sony, the Japanese manufacturer of consumer electronics whose slogan for the aptly named 'make.believe' products is: « Believe that anything you imagine, you can make real ». ³ It seems that yesterday's mythological creatures in the domain of Greek mythology are today's virtual creatures in the digital domain of the internet and they interact with internet users who experience them as cultural products, via networks, search engines, mailing lists, blogs, etc. Not surprisingly, 'make.believe' products have a narrative character, just like nymphs, Zeus, Cerberus or the chimera. In addition, they are easily distributed – and sold. They are incomplete and auxiliary objects or target-objects (*Zielgegenstände*) as Meinong would say: they appear when they are believed, talked about or looked at online. If nobody talks about them, they disappear. Bolzano would concur that this is why there are presentations with non-existing objects.

In what follows I reconstruct Bolzano and Meinong's semantics of chimeras which is applicable to the contemporary interaction of the virtual and the real. In addition I reconstruct their answers to the epistemological question: are chimeras knowable *a priori* and, if so, how? This epistemological question is important for previsions or visualizing what will, should or may be, that is, for assuming and believing that *x* is possible for *P* and for making predictions

¹ "Purely fictional objects, like Holmes and Zeus, do not enter into causal chains with respect to us". (Towards Non-Being, 2005, OUP, 82, 136)

² The chimera appears in Homer's Iliad 6, 18. "In front a lion, in the rear a serpent, in the middle a goat". The well-known distinction between real and chimerical ideas was formulated by Leibniz (1765, L.II.30, § 1), though the philosophical discussion about chimeras goes back to the scholastics. The latter considered chimera not only as *non-entia*, but as impossible *entia* and from their point of view, the problem was how the term 'chimera' could be significative (present something to the mind) since that which it signifies is impossible to understand.

³ Sony.com/makedotbelieve

about the future existence of x which is necessary, probable, possible (or impossible) for P . Predictions contain modal verbs expressing probability or possibility and these latter have an existential import. If you are a woman suffering from breast cancer and (can afford to) take tamoxifen, it is possible that you will be cured. If you are an investor wanting a failsafe option for their money, you should invest in gold and if you do, you may just keep your savings. Predictive statements are assumptions containing objectless presentations: that a possible event y will happen to me or that I will do x or possess x – and either the prevision is fulfilled and the prediction obtains, or it doesn't. To cite two Bolzanian examples (1837, § 70): there are no roses which blossom only in winter but, with sufficient genetic mutation, there could be. So the presentation [roses which blossom only in winter] is chimerical because it has no actual object and the referential relation between this presentation and its referent is not applied – but, under the appropriate conditions, it would be applicable. Likewise, if medical research in genetics and epigenetics has positive results, there might be a man who is 997 years old (or there might have been, if you believe the Old Testament). For now, this presentation is chimerical but, being chimerical, it allows us to think, imagine, talk about or assume a *non-entium*.

1. Reconstructing the problem of objectless presentations according to Bolzano (1837) and Meinong (1894)

The starting point of my reconstruction of Bolzano and Meinong's views on objectless presentations is Meinong's (1894) citation of Bolzano (1837, § 67) in the article "*Intentionale Gegenstände*":

« Dürfen wir [...] annehmen, dass jeder Vorstellung ein Bedeutungsgehalt zukomme, so bleibt nun die ungleich schwierigere Frage zu erörtern übrig, ob sich eine jede auch auf Gegenstände beziehe. [...] jeder Vorstellung entspricht ein Gegenstand. Andererseits gilt es aber als unzweifelhafte Wahrheit, dass nicht jeder Vorstellung ein Gegenstand entspricht, *es gibt, mit Bolzano zu sprechen, „gegenstandslose Vorstellungen“*. [...] Demnach scheint es, dass wir jeder Vorstellung zwar eine Bedeutung, aber nicht jeder eine Beziehung auf Gegenständliches zuschreiben dürfen. [...] (WL, §67)". (1894, § 1, my italics).

Meinong discusses the paradox of the so-called objectless presentations (*Das Paradox der sogenannten gegenstandslosen Vorstellungen*): every presentation presents an object but not every presentation has a corresponding object (1894, § 1). Objectless presentations do not have a corresponding object although they present (*vorstellen*) an object. Put differently, they refer or signify but do not indicate because the object is not actually present. That is why not every presentation has an object, although every presentation has signification.

I suggest that Bolzano and Meinong use the problem of chimeras, *non-entia* and objectless presentations to clarify the relation between linguistic signs, what they signify and their object (*Gegenstand*) (what is signified, the grammatical subject of which something is predicated). They agree that the relation is that of referral, either by virtue of the object's visibility or contiguity, or by virtue of the object's assumption under a hypothesis in which the said object is posited. The *Gegenstand* of the presentation is presented (*vorgestellt*), intended or signified. Presentations of chimeras or round squares present or intend or signify an object, although there is no actually corresponding object. Thus Bolzano considers presentations of imaginary objects, such as [golden mountain] as a special kind of objectless presentation (1837, §§ 66, 70). Likewise, presentations of science, literature, boundaries, shadows or academic titles lack an actual corresponding object, though an object is assumed or presented. (Meinong, 1894, § 1).

Bolzano admits that it may sound strange to speak of *presentations* which no one *presents* (*sich vorstellt*), but he blames this incongruity on the lack of an appropriate name for something that we inappropriately associate with a mental change (1837, § 50.3). Whereas

subjective presentations are mental or linguistic acts, he considers objective presentations or presentations as such as constituent parts of propositions (1837, § 50) and as significations (*Bedeutungen*) of signs.

„Die *objective Vorstellung*, deren entsprechende subjective durch die Vorstellung des Zeichens angeregt werden soll heißt die *bezeichnete Vorstellung*, auch die *Bedeutung des Zeichens*. Ist die bezeichnete Vorstellung eine Gegenstandsvorstellung, so pflegt man zuweilen auch ihren Gegenstand selbst den bezeichneten oder die Bedeutung des Zeichens zu nennen.“ (1837, § 285, my italics).

Meinong also distinguishes between subjective and objective presentations. The former are mental acts or mental contents of mental acts and their objects either exist or do not exist. The latter are significations of subjective presentations (as for Bolzano) and they name their object. „Wenn wir aber sagen, „die Vorstellung Löwe stellt einen Gegenstand vor“, so figurirt nicht die subjektive, sondern die ‚objektive‘ Vorstellung als Träger der Beziehung [...] die Beziehung auf den Gegenstand werde bei jeder (subjektiven) Vorstellung vermittelt durch ihren ‚Inhalt‘, d.i. ihre Bedeutung.“ (1894, § 12)

For example, the presentation [lion] signifies a lion and the presentation [chimera] signifies a chimera. The signification [lion] mediates the relation between this word (or thought) on one hand and the thing of which ‘being a lion’ is predicated, on the other. If I say “that thing is a chimera”, I predicate the property of being a chimera of that thing – so there is an object (*Gegenstand*) such as a chimera, even though it does not exist empirically in the particulars, unlike a lion. However, chimeras are nameable, thinkable and presentable and by naming it, I fabricate such an object (linguistically, not empirically). Or I can draw a composite animal which is a lion in front, a goat in the middle and a serpent at the rear for an addressee to see.

Both authors are eager to dissociate linguistic signification from mental events, acts or contents, for a signification (or objective presentation) is that by virtue of which a sign refers to its object but, as Bolzano says, the signification is not the object of the presentation. « Wohl aber denken wir etwas bei diesen Ausdrücken und müssen es denken, das aber ist nicht der Gegenstand dieser Vorstellungen, sondern die Vorstellung an sich » (1837, § 67) A *Vorstellung an sich* or objective presentation, is a signification (1837, § 285).

Nor is a signification a mental picture by means of which a presentation relates to its object, as Meinong points out:

„Dass jede Vorstellung mittels eines ‚geistigen Abbildes‘ auf ihren Gegenstand beziehe, halten wir für eine theoretische Fiktion. [...] Ich möchte die ‘geistigen Abbilder’ kennenlernen, welche den Begriffen Kunst, Literatur, Wissenschaft u. dgl. einwohnen sollen [...] auch die geistigen Abbilder in absurden Vorstellungen gedachter Gegenstände [...] und wieder diejenigen, welche dem Mathematiker bei der Lektüre einer von komplizierten Formelsystemen erfüllten Abhandlungen vorschweben“ (1894, § 1).

2. Bolzano and Meinong distinguish between different levels of existence (first- second- and third-order)

Bolzano (1837) and Meinong (1894) develop semantics of chimeras and other *non-entia* and thus contribute to the discussion about existing and non-existing entities and the underlying issue of whether non-existing entities are probable or possible, improbable or impossible entities. The two authors focus on different aspects of *non-entia*: Bolzano (1837) examines objectless presentations (*gegenstandslose Vorstellungen*) so as to clarify the notion of presentation, while Meinong (1894) analyses the objectuality (*Gegenständlichkeit*) of *non-entia*. Objectuality is what is signified (or presented) by a name. Bolzano is concerned with *Gegenständlichkeit* as a property of presentations: a presentation is objectual when it has (presents) an object and it is objectless when its object is imaginary, impossible or absent. The

subjective presentation [round square] has no object or objective presentation [round square], that is, the subjective presentation has no referent which fits the ascription of contradictory properties (1837, § 271) but a presentation has a referential relation to its object despite the fact that there are different types of objectless presentations which lack a referent.⁴

“Ich glaube [...] daß es Vorstellungen gebe, die gar keinen Gegenstand haben (zu welcher Gattung z.B. gleich die imaginären gehören), und wieder andere, die zwar einen Gegenstand, aber nur einen solchen haben, der keine Ansprüche weder auf Wirklichkeit, noch Möglichkeit macht. Von dieser Art dünkt mir z.B. die Vorstellung, welche die Worte ‚eine mathematische Wahrheit‘ bezeichnen.“ (1837, § 70-71). Objectless presentations can be real (or simple) or chimerical (or complex) and the relation between an objectless presentation and its object is ‘referential’, that is, it has no actual referent but it could have a referent – possibly, probably or necessarily (1837, § 66.5. note 1).⁵

Meinong agrees with Bolzano: there are presentations which present objects but these objects do not actually exist. „In den bezüglichen Vorstellungen sind die unmöglichen oder fiktiven Gegenstände vorgestellt, aber sie existieren nicht.“ (1894, §1) Nonetheless we can (and do) make judgments about chimeras and other monsters and we can expect, fear or wish them.

Both authors, it seems, distinguish between three levels of existence or ‘being’. There is (*es gibt*) a virtual or possible level for ideal, mathematical and logical objects, an actual level for perceived (*angeschaute*) objects and a real level for the signification of objectless presentation and their referential relation to an object. A presentation has objectuality (*Gegenständlichkeit*) if it names something or refers to something or predicates a property of something. For example, a triangle truly exists (*hat wahrhaft Existenz*) as a figure that is looked at (*angeschaute Gestalt*) and assists the geometer. A chiliagon, on the other hand, can only be imagined: a geometrical figure presents (*vorstellt*) a non-existing object, an object which merely has presented existence, by virtue of definition “bloß vorgestellte Existenz, die Existenz vermöge der Definition und gültigen Deduktion aus den axiomatischen Grundlagen” (1894, § 8). In other words, immanent objects are visible to the senses (hence the assumption, that it truly exists, that is, outside the mind), whereas intentional, thought or imagined objects are invisible to the human eye (and hence their existence is assumed by definition and derived from axioms). Meinong (*ibid*) says that there is an unbridgeable gap (*unüberbrückbare Kluft*) between observed and thought entities (unlike Descartes, for whom there is merely a difference in clarity and distinctness between a triangle and a chiliagon).

Bolzano agrees with Meinong on this but, as a mathematician and logician, he accepts that a presentation can be real even if it does not have an actual object (*wirklichen Gegenstand*). The concept “a regular 10-chiliagon (*Zehntausendeck*) is real but it only contains the thought of a mere possibility (*Möglichkeit*) of such an object and not the thought of its reality (*Wirklichkeit*)” (1837, § 70.4).⁶ A geometrical figure with ten-thousand angles is

⁴ Cf. Künne (1997) who argues that for Bolzano, the *Gegenständlichkeit* of a presentation is not its referent but its propositional sense: the object ‘I’ stands under the concept [human being].

⁵ « Unter dem *Gegenstande einer Vorstellung* verstehe ich immer nur denjenigen, auf den sie sich in der That *bezieht*, d.h. nur durch sie *vorgestellt* wird. Ganz etwas Anderes aber ist der Gegenstand, auf den ein *denkendes Subject* eine gewisse Vorstellung so eben beziehet, oder (allgemeiner zu reden) der Gegenstand, auf den eine gewisse Vorstellung als Prädicat in einem gegebenen *Satze* (gleichviel ob er gedacht oder nicht gedacht wird) bezogen angewandt wird. » (1834, Bolzano-Exner Korrespondenz, 80).

⁶ „und ich nenne daher z.B. den Begriff eines regulären Zehntausendecks real, auch wenn es keinen wirklichen Gegenstand gibt, der ein solches Zehntausendeck wäre; denn in jenem Begriffe kommt wie in allen Begriffen von Räumen nicht der Gedanke der Wirklichkeit, sondern nur der einer blossen Möglichkeit eines so beschaffenen Gegenstandes vor.“ (1837, § 70.4) Other simple presentations are syncategorema or parts of speech that do not name: conjuncts such as [and], [or], negations [not] or [nothing], articles such as [der], relative pronouns such as [who] or indeterminate adjectives such as [each] or [every] (1837, § 57.note, 58.5-6). They are parts of presentations which modify the latter’s signification although they are not significations (or

a possible object but it neither actually exists, nor is it thought to actually exist. It is merely assumed and its existence follows from that assumption as a consequence. Meinong explains: „Mathematische Existenz und Nichtexistenz ist also Existenz und Nichtexistenz unter bestimmten Grundlagen: Die Existentialsätze sind wie alle mathematischen Lehrsätze insgesamt unvollständig, sind blosse Nachsätze hypothetischer Sätze mit immer gleichem Vorsatz.“ (1894 § 9).

In addition, there is the real level of ‘linguistic existence’ (which accounts for all levels of existence, including the so-called *ficta*). On this level, objectuality is that which is named by a name and expressed in an assertion.⁷ Bolzano and Meinong agree that predication presupposes a linguistic system in which a presentation is segmented into a subject- and predicate- signification or, as Bolzano says, a subject-presentation (*Subjectvorstellung*) and predicate-presentation (*Prädicatvorstellung*) which he sometimes calls grammatical subject (*Unterlage*) and grammatical predicate (*Aussageteil*) (1837, §§ 128, 136, 137). After all, for Bolzano, a *Vorstellung* is, strictly speaking, nothing but the component of a proposition (or sentence) which is not yet a proposition (or sentence). (1837, §§ 48, 128). And Meinong holds that every predication has a double referential relation: one in the subject and one in the predicate. These latter have a (re)presentative function – they are substitutable signs or placeholders for something which they refer to or act as signs of (1894, § 14).⁸

Linguistic expressions predicate existence but the reference to, or imagination of, unicorns or the Oxford murders, do not have actual or first-order objects that can be located by an utterer and an addressee in physical space/time. Nonetheless, existence is predicated of angels, unicorns or natural numbers in the domain (or set) of imaginary objects or numbers, respectively. The referent is located on the linguistic level if, as a free variable x , the referent is assigned the value \exists in a formula containing that variable. There exists at least one x such as $\text{angel}(x)$: $(\exists x) \text{angel}(x)$ means that *there* locates at least one such x such as $\text{angel}(x)$ which an addressee is asked to look at under the description ‘this angel’.

Hence the presentation [angel] has objectuality, as Bolzano says (1837, § 137) and continues “auch alle jene Sätze, deren sprachlicher Ausdruck die Form: „Es gibt ein A“ hat; wie „Es gibt einen Gott; es gibt ein oberstes Sittengesetz; es gibt Körper, die mit vier gleichen Seitenflächen begrenzt sind“, u.dgl. Daß wir in Sätzen von dieser letzteren Art durch die Worte „es gibt“ nicht immer ein wirkliches Dasein des Gegenstandes, auf den sich die Vorstellung A beziehet, aussagen wollen, erhellet sich schon daraus, weil wir sie auch bei Gegenständen gebrauchen, denen kein Sein in der Wirklichkeit zukommen kann“ (1837, § 137). They have no available or extant object „ein Gegenstand aber, auf den sich diese Vorstellungen [...] bezögen, ist für keine derselben vorhanden.“ (1837, § 271).⁹

presentations) themselves but *Bezeichnungen* or indicative signs (which indicate presentations) (1837, § 57.note).

⁷ „Ein Name nennt etwas, d.i. es gehört ihm eine Vorstellung zu, deren Gegenstand eben das ist, was er nennt.“ (Meinong, 1894, § 8).

⁸ Both authors hold that some words express objectless presentations, namely those parts of speech which are neither subject- nor predicate-presentations and do not name anything: ‘has’ conjuncts such as ‘or’ ‘and’ (1837, § 127), as well as the indeterminate article, for example in the attributive presentation [a horse] „Man beachte, daß auch das Wörtchen ‘ein’ zur Bedeutung beiträgt und frage dann was durch dieses Bedeutungsmoment am Pferd selbst abgebildet sei. (1894, § 14).

⁹ „So mag man wohl sagen, dass auch der Gedanke Nichts einen Stoff hat, nämlich den objectiven Begriff des Nichts selbst. Dass aber auch diesem noch ein gewisser Gegenstand zu Grunde liege, ist eine Behauptung, die sich schwerlich rechtfertigen lässt. Ein gleiches gilt von den Vorstellungen: rundes Viereck, grüne Tugend, u. dgl. Wohl denken wir etwas bei diesen Ausdrücken und müssen es denken; das aber ist nicht der *Gegenstand* dieser Vorstellungen, sondern die Vorstellung *an sich*. Bei diesen Beispielen leuchtet es übrigens gleich von selbst ein, dass ihnen kein Gegenstand entsprechen könne, weil sie demselben Beschaffenheiten beilegen, welche einander widersprechen.“ (1837, § 67).

Such objectuality does not entail actual existence in our world and Meinong rightly claims that the worlds of poetry or geometry and the real world do not enjoy equal rights (“*sind nicht gleichberechtigt*”). “Die unklare Rede von verschiedenen Existenzgebieten, von verschiedenen ‘Welten’ (*universes of discourse*), die über Existenz und Nichtexistenz desselben Objekts verschieden disponieren, werden wir also nicht billigen. (1894, §9)

For existential statements about angels, chimera or God, as in « God exists », “there is a hierarchy of angels” or “the chimera is a composite animal” or « there is an (x) such as $K(x)$ », are conditional: they are final clauses of hypothetical statements depending on the hypothetical assumption of the underlying principles. We assert that ‘in Greek mythology’ there are nymphs, following the hypothetical assumption of an existential domain ‘Greek mythology’, or we assert that squares exist in defined space (1894, § 9). Thus Meinong joins Bolzano in distinguishing between the existential levels of ‘is’ and ‘there is’ (*es gibt*) (1894, § 13).

According to Bolzano and Meinong, therefore, *ficta* can be referred to, but ‘referring to’ entails neither reality nor actual existence in our world. Fictional entities do not have to exist, in order for us to talk about them, but our talking about them attributes them a hypothetical mode of being which follows from our positing or assuming them. Fictional entities are imaginary *entia* and hence they neither actually exist, nor do they have reality, although they are posited (in imagination) or assumed by whoever talks about them. For example, a chimera does not exist, but I have just named it. In addition, ‘is a chimera’ can be predicated of a composite animal which I can imagine or fear, describe or draw. So it virtually exists for me in my imagination and becomes actual in the imaginary world of narrative.

Chimeras and other *ficta* are real only insofar as we have images, pictures or texts about them, without our meeting their instances in our experiential world. In other words, they are cultural phenomena. In the case of the chimera, however, we might argue that the platypus is a real instance of this three-composite animal: a duck-billed, egg-laying mammal with webbed feet and a tail. So the chimera and the sphinx are not only possible as imaginary beings, but are real or actually existing animals. The only other species in its actual vicinity are aptly named *echidna*, that is, (she-)monsters. If a chimera is real, then it is a monster (or a miracle, depending on how you look at it). Speaking of monsters, this is how *ficta* can be experienced in a possible world which is a separate region of objects.¹⁰ If my daughter is scared of the monster looming in the dark outside her window, she experiences that monster as real, even though her reference to the object she points out ‘there, outside the window’ does not pick out an actually existing object. That is why Meinong argues that „die ganze Unterscheidung [zwischen Existenz und Nichtexistenz] läuft darauf hinaus, daß wir öfters [...] so sprechen, als ob die Urteile, die wir fällen, unbedingte wären, daß wir absolute Existenzialaussagen benutzen, während der logisch richtige Ausdruck hypothetische Sätze (mit diesen Existenzialsätzen als Nachsätzen) verlangen würde [...]“ (1894, § 9).

Or, to pick a Bolzanian example: « Der Begriff eines Engels hat Gegenständlichkeit » is a statement which does not express the first-order existence of angels but posits or assumes their virtual existence. This statement recently received an actual update by Lev Grossman, a journalist with *Time Magazine* (March 15, 2010, 44): “Lately we’ve been fighting off an infestation of angels. Swarms of these winged pests have invaded the movie *Legion*, the video game *Bayonetta* and the TV series *Super-natural*, and now they’ve turned up in a book called *Angelology* by Danielle Trussoni. They’re like cicadas.”¹¹ Believe it or not, angels are experienced as real.

¹⁰ Cf. Husserl (PhBE, 1922-3), appendix LXI, 565.

¹¹ www.time.com

3. Bolzano and Meinong on *ampliatio*, *suppositio* and the modifying force of the attribute ‘presented’

Meinong points out the modifying force of the attribute “presented” (*vorge stellt*). „[...] von der modifizierenden Kraft des Attributs „vorge stellt“. „Denn überall weist die Modifikation auf eine Uneigentlichkeit der Ausdrucksweise hin, die die normale Bedeutung und Funktion eines grammatischen Attributs in irgendeiner Beziehung wesentlich ändern“ (1894, § 6)¹² Bolzano calls it ‘amplification’ (*Ausdehnung*) which he considers applicable to objectless presentations (1837, § 108). Meinong and Bolzano pick up this thread from late scholastic theories who dealt with *non-entia* in their logic of terms (*proprieta tes terminorum*).¹³

Roughly, the difference between the assertions: „I see *x*“, and „I present *x*“ is that the latter verb has an ampliative force: it has a possible or virtual referent (whereas the former has an actual referent and no ampliative force). The verbs “see” and “present” have different presuppositions, as do their corresponding attributes [a seen lion] and [a presented lion]. The mathematical presentations $[2 - 2 = 0]$, $[1/\sqrt{-1} = -\sqrt{-1}]$ and the presentation [a being without a single positive property (*Beschaffenheit*)] have an ampliative force. The former are used in equivalences and also in mutual exclusions: the presentations [a body with five equal and even lateral surfaces] and [a body with seven equal and even lateral surfaces] are said to be mutually exclusive, although neither presentation has an existing object (1837, § 108).

The presentation [a being without a single positive property] is used in subordinate conditional clauses such as ‘*if...then*’ in what the late medieval scholastics called *suppositio*: assuming or supposing a thought or statement as subordinated under another thought from which it can be inferred. Thus ‘if there is no being without a single positive property, then there is not a single man without at least one positive property, because the presentation [a man without a single positive property] is subordinate to the presentation [a being without a single positive property]’ (1837, § 108). Meinong (1894 who mentions the scholastics at § 1) also uses *suppositio* – his own notion of *assumption* (*Assumption*) is derived from it – even etymologically, since *suppositio* or *subpositio* is late Latin for supposition (*Annahme*) or hypothesis. Meinong explains the hypothetical character of existential statements about imaginary or non-entia as the mere subordination under the conditioning assumption “die bloße Unterordnung unter die bedingende Assumption” (1894, § 8). Existential statements about nymphs or mathematical entities follow from hypothetical statements. *Suppositio* also has another function, in the scholastic formula *supponit aliquid pro aliquo* or ‘something which stands for (or serves in place of) something else’ (Kneale & Kneale, 1962, 250). The relation between *aliquid* and *aliquo* or *signans* and *signatum*, is signification, or referral by virtue of.¹⁴

When this relation acquires a modificatory or ampliative force, it relates signs (or sign-bearers) and *non-entia*, since that which a sign or name serves in place of, may or may not exist. *Suppositio* and *ampliatio* are a characteristic feature of participles of the so-called *verba dicendi* in active and passive configurations, participles such as *believed*, *promised*, *wished*, *thought*, *cited*, or *remembered*. Verbal tenses (past and future) also have an ampliative or

¹² “dieses fordert als nicht-modifizierendes Prädikat das ihm normal zugehörige Subjekt” [...] „jenes aber als modifizierendes Prädikat fordert das anomale Subjekt; [...] es fordert einen Subjektausdruck, dessen Bedeutung gerade nicht [...] die Subjektbedeutung, sondern der Subjektgegenstand sein soll, und zwar für das nicht ausgesprochene Prädikat ‚gilt‘. (1894, § 13).

¹³ For example, William of Sherwood and Buridan. Cf. Priest (2005, 68-81)’s discussion of medieval accounts of intentionality.

¹⁴ « Signans » and « signatum » is Roman Jakobson (1975, 443)’s terminology – another Prague scholar who claims that every sign is a referral – and who also discusses Bolzano.

modifying force: past and future tenses can modify the grammatical subject so that it refers to what was, will be as well as what is. In “Caesar ran” or, as William of Sherwood (*Introductiones*, 84) says : “*Homo cucurrit* verum est pro Caesare”, the past perfect tense of the verb ‘curro’ modifies “Caesar” to supposit or assume a subject which does not exist at the time of utterance. Likewise, verbs with a direct object and governed by the accusative posit their objects: “*x* remembers *F*”, or “*x* researches *F*”. In addition, verbs in the conditional and in the subjunctive mood posit counterfactuals: “I think there might be a chimera in this room” or “if there were a chimera in this room, it would surprise us”. Or, to use Meinong’s example: “The ancient Greeks believed there was a god Zeus who was the highest of their equally assumed Olympic Gods, etc.” This statement sounds better in German due to the subjunctive which is regrettably unavailable in English: „Die alten Griechen *glaubten*, es gäbe einen Gott Zeus, derselbe sei der oberste der von ihnen ebenfalls *angenommenen* olympischen Götter u.dgl.“ (1894, § 6, Meinong’s italics). „Obviously”, says Meinong, “whoever makes judgments about mythical objects places himself on the ground of myth without, however, making that ground truly his own.”¹⁵ This judgment is modified because it only appear to be about presented mythical objects insofar as we assume their existence by positing or imagining ourselves on the ground of the existence of those objects. We judge as if those objects existed, thus projecting a perspective which grounds those objects.¹⁶ This modified judgment is not explicit but whoever talks about mythical objects accepts that the ancient Greeks believed that there was a god named Zeus whom they assumed to be the highest god.

In other words, those objects obtain their objectuality through attribution in *oratio obliqua* – the modified judgment that there was a god named Zeus who was assumed to be the highest god is implicit in the statement in *oratio recta* which names or presents Zeus.

3.1. Bolzano and Meinong on imaginary presentations and/or imaginary objects: how knowledge *a priori* is possible

In this section I reconstruct Bolzano’s and Meinong’s claim that chimeras as imaginary *entia* are cognizable (*erkennbar*): they can be known either by description or by acquaintance. This is the epistemological *enjeu* of their semantic theories: if imaginary entities can be presented, then the reality of these presentations is assumed and presupposed and, possibly, it can be proved. Bolzano’s claim that truths as such are cognizable is well-known: an object is cognizable if it can be the matter (*Stoff*) of a cognition (*Erkenntnis*) or a true judgment. “Erkennbarkeit eines Gegenstandes aber ist die Möglichkeit, ein Urtheil, welches wahr ist, über ihn zu fallen” (1837, § 26).

Consider the chimerical presentation [quark] – a postulated entity in subatomic physics which is assumed to be a building block of a bulkier (or thicker) subatomic particle called ‘hadron’. Physicists predicate flavours and colours of quarks called ‘beauty’ or ‘charm’ and they even give names to anti-quarks, such as ‘minus-red’ or ‘minus-green’. These presentations refer, although the existence of their referents is questionable, at best. One might argue that the possibility of knowledge need not stop at ‘things’ but could include *non-entia* which are in the process of becoming *entia*, that is to say, *emergent entia*, such as changes, processes, speech flow, my swimming in the Black Sea or the movement of bodies under the effect of forces. Other emergent *entia* are processes in which changes come about due to the effects of forces, such as variations in the sound-levels of musical presentations; interactions, such as various forms of communication: a dialogue between colleagues or

¹⁵ “Es ist selbstverständlich, dass, wer über mythische Objekte urteilt, sich auf den Boden des Mythos stellt, ohne sich ihn doch wahrhaft zu eigen zu machen.“ (1894, § 6, my translation).

¹⁶ „Aber explizit urteilen wir das nicht, wir urteilen über die Gegenstände; aber unser Urteilen ist dann ein ‚modifiziertes‘, ein Scheinurteil über vorgestellte Gegenstände, sofern wir uns auf den Boden der Existenz der Objekte stellen (hineinphantasieren u.dgl.), auf dem wir in Wahrheit gar nicht stehen.“ (1894, § 6).

discussions on web-forums and blogs. Another kind of interaction occurs between texts and paintings in which one and the same cultural or mythical object appears as *sujet* such as nymphs and Botticelli's painting *Primavera* (1482) whose occurrence, just as the occurrence of unicorns or angels, depends on the force of the conviction with which we believe in those chimera which are projected in imagination. The degree of this belief has a higher or lesser degree of subjective probability and is based on the assumption that 'there are nymphs' on the ground of myth (otherwise nymphs would be homeless). In the domain of myth, however, nymphs not only are not homeless, but gain new ground, in pictorial representation. Certain events are also possible *entia*, such as my wish to go to the seaside or my daughter's desire for a computer with an internet connection. Strictly speaking, past events, such as the two world- (and many other) wars are also *non-entia* or at least doubtful *entia* as, for example, determining the borders of France at the time of the Merovingians.

A (possible) Bolzanian reply concerning the presentations [quark], [minus-red], [minus-green] and [the borders of France at the time of the Merovingians] is that a presentation is chimerical or imaginary, if and only if in that presentation is assumed the actuality of each and every one of its absent and corresponding objects. «dass eine Vorstellung erst dann durch die Abwesenheit jedes ihr entsprechenden wirklichen Gegenstandes imaginär (oder chimärisch) werde, wenn seine Wirklichkeit in dieser Vorstellung ausdrücklich vorausgesetzt wird.» (1837, § 70, note 4). [Minus-red] and [minus-green] are chimerical presentations without an actual object but in these presentations the concept of actuality is assumed, based on the subatomic theory. That theory presupposes that there could be subatomic particles such as quarks.

According to Bolzano, the distinction between real (*real*) and imaginary (*imaginär, eingebildet*) presentation corresponds to the distinction possible/impossible image. Like Meinong, he rejects the notion that a presentation must necessarily be accompanied by an image or be made sensory (*versinnlicht*) (1837, § 70, note 1).¹⁷ He does, however, admit the possibility that some imaginary presentations have an accompanying image which "hovers (*schwebt*) before us", an image painted by my sensory and creative ability (*sinnliches Dichtungsvermögen*). Of this kind is the presentation [the borders of France at the time of the Merovingians], an accompanying image of which hovers before us, an image of an object which would have had the property expressed in that judgment. "[S]o schwebt uns jedesmal eine gewisse imaginäre Vorstellung vor; nämlich die Vorstellung von einem Gegenstande, dem die Beschaffenheit zukäme, welche in diesem Satze ausgesagt wird." (1837, § 70 note 4).¹⁸ Bolzano points out that one can have an image of an object, regardless of whether the object is real or not. For instance, one can imagine a body limited by 24 equilateral triangles, as well as a body limited by 20 equilateral triangles, though the first object is impossible whereas the second object is possible and hence the first presentation is imaginary whereas the second presentation is real (1837, § 70 note 1). Since the object of the presentation [the borders of France at the time of the Merovingians] is possible, this presentation is not imaginary, but real – regardless of the image hovering before us which acts as if there were such an object or makes believe that there is such an object.

Bolzano argues "dass wir imaginäre Vorstellungen gewöhnlich nicht durch Bekleidung mit einem sinnlichen Bilde beleben können, wie uns diess bei realen Vorstellungen oft möglich ist". Our inability to animate certain imaginary presentations such

¹⁷ «Die imaginäre Vorstellung muss also so beschaffen seyn, dass es wohl scheint, sie habe irgend einen Gegenstand, während sie ihn doch wirklich nicht hat» (1837, § 70 note 3).

¹⁸ Husserl (1912, PhBE) uses the same terminology ('*als ob*', *schwebt vor*) when discussing *ficta* which hover before us, as if they were real, because they are posited (*gesetzt*) before us. Relating presentations to their objects via productive imagination is, of course, the problem of Kant's schematism – but, for lack of time I shall not discuss it here.

as [round square] or [blue yellow], due to their contradictory properties, is not a sufficient reason to discard them. “Dieses ist aber kein hinreichender Grund, die imaginären Vorstellungen nicht für echte Vorstellungen gelten zu lassen. Denn zu dem Wesen einer Vorstellung gehört nicht einmal die Bedingung, dass sie (von einem jeden geistigen Wesen) gedacht, um wie viel weniger die, dass sie durch ein gewisses Bild versinnlicht werden könne.“ (1837, § 70 note 1). The domain of what can be known is extended due to chimerical presentations because they signify or refer to *non-entia* which may have been or may yet become actual. That which ‘hovers’ before us is not even an image but a (Kantian) schema – an outline or pattern which orients an addressee on that which is named by a presentation.

Whoever has not seen the borders of France at the time of the Merovingians, may wonder what and where they are – since they do not even figure on geographical maps. Whatever image one has of them is a shadowy surrogate (or schema), which serves to coordinate a narrator and an addressee on an object. Those borders are assumed or posited in the narrative about France at the time of the Merovingians which is a literary *sujet* representing the subject « France at the time of the Merovingians ». The appearance or pictorial function of this schema is to depict the subject for an addressee to grasp and understand in the coordinate system of the narrative. Meinong would probably call [the borders of France at the time of the Merovingians] a higher-order object or *Gestalt* of France which does not have a corresponding object given to the senses but is assumed in the tales or legends about France.

On Meinong’s view, the distinction between *realia* and chimera is a distinction between mathematical existence and non-existence which is based on a distinction between ‘valid’ concepts, the existence of which is provable and invalid concepts which cannot be proved ‘non-provable’. [Square] or [triangle] are valid concepts: their reality or existence can be proved by constructing the corresponding geometrical figures – actually there are no squares or triangles, but there could be. A round square, however, cannot be constructed (although it might be constructible as a polygon on spheres) (1894, § 8). Hence, according to Meinong, the actuality of valid geometrical concepts is a mathematical projection or an assumption, from which their (mathematical) existence follows as a consequence, just as the existence of nymphs follows from their assumption on the ground of myths.

The difference between Bolzano and Meinong is that the former speaks of nymphs as presentations (*Vorstellungen*), whereas the latter speaks of nymphs as objects (*Gegenstände*). For Bolzano, the presentation (*Vorstellung*) of a nymph can be accompanied by an image, whilst Meinong would say that the object (*Gegenstand*) named ‘nymph’ has a figurative character. Perhaps a painter like Botticelli would agree with Meinong, since he painted nymphs as objects (*Gegenstände*) and not as presentations. The objectuality (*Gegenständlichkeit*) is assumed, projected or depicted (re-presented). Nonetheless, Meinong and Bolzano agree that presentations and their non-existing or imaginary objects (*Gegenstände*) stand in a referential or signifying relation and that signification is the essential determination of presentations (1894, § 12). “So enthält [...] die Vorstellung, « der Mathematiker, der den Begriff $\sqrt{-1}$ zuerst anwendete », sicher die imaginäre Vorstellung $\sqrt{-1}$ als einen Teil in sich, und ist doch unläugbar eine gegenständliche Vorstellung.“ (1837, § 71.2).

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