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Citation for published version:

Darmon, I 2013, 'Weber on Music: Approaching Music as a Dynamic Domain of Action and Experience' Cultural Sociology., 10.1177/1749975513511789

Digital Object Identifier (DOI):

10.1177/1749975513511789

Link:

Link to publication record in Edinburgh Research Explorer

Document Version:

Author final version (often known as postprint)

Published In:

Cultural Sociology

Publisher Rights Statement:

© Darmon, I. (2013). Weber on Music: Approaching Music as a Dynamic Domain of Action and Experience. Cultural Sociology, doi: 10.1177/1749975513511789

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Download date: 20 Feb 2015

Cultural Sociology



Weber on music: Approaching music as a dynamic domain of action and experience

Journal:	Cultural Sociology
Manuscript ID:	CS-13-0046.R1
Manuscript Type:	Original Manuscript
Keywords:	music, Weber, rationalisation, music instruments, composer
Abstract:	Max Weber's music writings (including his unfinished Music Study) have always mesmerised readers but their importance for analysing music as a cultural domain has only started to be acknowledged. This paper focuses on Weber's approach to the inner 'developmental momentum' of the music domain through his study of the particular tension that pervaded Western harmonic music. By showing how composers, performers, instrument manufacturers, art recipients and the instruments themselves had to grapple with such tension, Weber was able to give an account of the inward connection to an art sphere and its structuring effects, whilst also bringing social, economic and technological factors to bear. In the current debate on the desirable ways for a renewed sociology of culture, Weber's music writings present us with a path at once precarious and bold, an account of inner connections and outer relations, which, against Weber himself, also provides bases for aesthetic judgment.

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Weber on music: Approaching music as a dynamic domain of action and experience

Introduction

The question of how to account for art from a social perspective without neutralising it, has been, is, and probably will remain a structuring question for the social and cultural sciences. Music has been a privileged site for asking this question, perhaps because, whilst thoroughly social, it clearly exceeds all determinations. In the last 15 years, the sociology of music has moved both 'beyond Adorno' and 'beyond Bourdieu' in an attempt to open up new paths to rise to this challenge, as testified for example in special issues of *Poetics* (Peterson and Dowd 2004) and *Cultural Sociology* (Santoro 2011) and their ensuing debates, as well as in the present special issue.

In part under the influence of actor network theory and in the midst of interrogations as to Bourdieu's legacy for the sociology of art (Prior 2011), the social and cultural sciences have been exploring anew their capacity to give an account of engagement with art that is not reduced to analyses of the social reproduction of taste; an account of creation that is not reduced to the outcome of the positions, strategies and struggles of artists and other agents; an account of the specific social relations taking place in music, rather than the translation from the social space of structural positions; and consistently with all these, albeit cautiously, they have sought to give more consideration to aesthetic value.

In this endeavour they have paradoxically mobilised and transformed Adornian notions, such as that of 'mediation', against the excesses of Bourdieu's sociologism, in an attempt to problematise the connections to music, affects, attachments, and

agency specifically in and through music (e.g. Hennion 2008; Krzys Acord and DeNora 2008)

However these concerns are also being addressed through the development of more specific conceptualisations of music spaces, in critical engagement with Bourdieu's notion of the artistic field. Thus Bottero and Crossley have criticised Bourdieu's 'homologies between sets of practices in different fields' and their mapping on to the social space of structural positions (2011: 103). In their place it has been proposed to investigate the concrete relations structuring musical spaces, for example conceived of as 'networks' or through the mobilisation of Becker's concept of 'worlds' and the notion of 'scene' (e.g. Bennett and Peterson 2004).

In this paper I propose to leave the pursuit of beyonds, and return instead to beforehands, by listening to what one of the founders of the social and cultural sciences had to say before Bourdieu and Adorno. Max Weber's study of music, an unfinished piece written in 1912-1913, published posthumously in 1921, is a historical, sociological and comparative piece, nourished with the latest music theory and ethnomusicology of its time. Contrary to what has been argued (e.g. Martin 1995), it is not one more instance of Weber's thesis on the rationalisation of the West, but accounts for music as a cultural domain of action, engagement and relations, starting from the matter of music, its sounds, technologies, instruments and logics of organisation. Weber's music study and other art writings preceded, inspired and were appropriated in highly selective ways by both Adorno and Bourdieu. But fresh assessments of Weber's music writings may uncover new pathways for exploring the specificity of the social in art, and more specifically in music. This paper seeks to make a contribution to such assessments and to outline possible directions for future

comparison with Adorno and Bourdieu's conceptions of the dynamic of music or the artistic field. Unfortunately there has so far been little engagement in the English-speaking world with the Music Study, let alone with its general gesture and the vision it conveys for a sociology of the arts and other 'domains of culture'. The work of Christoph Braun (1992, 1994) and the edition of the Music Study by Braun together with Ludwig Finscher for the complete edition of Max Weber's work (*Max Weber Gesamtausgabe* – hereafter MWGA) (2004) have started to alter this state of affair – certainly in the German speaking world. A highly able French translation (Weber 1998) and a lively stream of research on musical practices have also restored the Music Study to the place it should have in francophone countries (e.g. see Pedler 2010, as well as two issues of the *Revue de synthèse* coordinated in 2008 by Philippe Despoix and Nicolas Donin). This paper aims at contributing to broadening the interest for the Music Study in the English-speaking world, and at conveying at least some of the boldness of its proposal for cultural sociology.

I attempt to do this by first bringing out the building blocks of Weber's approach, namely his focus on the dynamics shaping the means and matter of creation – especially the organisation of the 'sound material' (2004: 146; 1921: 3)² – rather than directly addressing creative subjectivities, or merely focusing on the social conditions of creation; on the interplay between such inner dynamic and its economic, social, technological determinants; and on carriers (theorists, composers, instrument manufacturers, practitioners and listeners) acting as nodes of connection between art domains and their external conditions. But I also aim at showing how such vision of the cultural domains allowed for analyses of creation, in particular through what could be called the artistic 'stance' (Frade 2013) and of the inward connection to music, including that of the listener. I thus hope to make clear, in this article, not only the

very sociological character of Weber's 'historical study' but also the possibility offered by these writings, perhaps in spite of Weber himself, for valuations of musical works, based on the understanding of the problems and tensions facing composers in the musical situation.

1. The dynamic of music as domain of culture³

In the 'Intermediate Reflection' of the *Economic Ethics of World Religions*, whose first draft he wrote in 1913, shortly after his first contribution to a 'history of music', Weber approached the constitution of relatively autonomous spheres through an ideal-typical theoretical construct of the tensions and conflicts between the religious and the worldly spheres. 'Spheres' of human action and experience are there elaborated as 'orders of life' (*Lebensordnungen*). The concept of order, a central concept for Weber, but one of 'very variable extension' and scope (Grossein 2005: 698), is to be understood in connection with Weber's axiomatic positing of consistency as a 'command over men' once they have taken a stand (whatever the actual limitations of this command in practice) (Frade 2013): the life orders then designate the spheres of human life and action as the 'consistent' wholes they would be if they were constructed by pursuing such 'command' to the end and drawing its ultimate implications. On that basis it would be possible, Weber tells us, to conceive of 'immanent' or 'intrinsic logics' (*Eigengesetzlichkeiten*), i.e. of logics of deployment of the life orders/value spheres as consistent wholes.

These propositions seem to have been elaborated through Weber's Music Study. There Weber explained that the particular path of music to the status of 'art' started whenever a status group of priestly or professional musicians⁶ 'reache[d] out beyond the use of traditional tone formulae with a purely practical orientation', and awakened

to 'purely aesthetic needs';⁷ but also that this very consciousness designated music as a specific object of rationalisation (2004: 188; 1921: 31). However, whereas in Weber's evocation of the music 'realm' in the 'Intermediate Reflection' there was no hint of a possible rift between the aspiration to sublimated musical experience and the constraints of form (1991: 222), the tension between the quest for refined aesthetic expression and the rationalisation of the musical material and instruments pervaded the Music Study. In the ideal-typical construct of the 'Intermediate Reflection', Weber explored the conflicts arising (mainly) *between* spheres when the 'rational' steers each of them to its ultimate consequences, whereas he thought that a historical study should look at the inner momentum created *within* a specific 'domain of culture' or life when rationalisation is deployed in practice, and inevitably stumbles upon the 'irrational' and other forms of rationality (1988: 438, 518). Weber laid down this conception of the purview of historical analysis particularly clearly in a famous footnote to the 1913 essay on 'A few categories of interpretive sociology':

The way in which the relation between the correctness type of a behaviour [NB: correct according to a particular ratio] and the empirical behaviour "works" and how this developmental momentum relates to sociological influences e.g. in the concrete development of an art, I hope to illustrate in the future with an example (music history). It is precisely these relations, namely the junctures at which the tensions between the empirical and the correctness type can break open, which are of the highest significance in terms of developmental dynamic, not only for a history of logic or other sciences, but also in all other fields. [As significant] (albeit with individual and fundamental variations in each domain of culture) is the fact that and the sense in which an unequivocal correctness type cannot be carried through but compromise or choice between a number of such

bases of rationalisation becomes possible or inevitable. Such problems, which are of a substantive nature, cannot be discussed here (1988: 438).⁸

Weber's investigation of the inner momentum of music opens on a primary, foundational, contradiction, stemming from the 'encounter' between the 'correctness' 'behaviour' of sounds (correctness according to the 'physics of sounds') on the one hand and their empirical behaviour on the other hand. The main intervals subjectively 'recognised' as consonant in all musical cultures, namely the octave and the intervals that divide it, the 4th and the 5th, correspond to fractions (of lengths of string segments and of frequencies) of a very specific nature ('superparticular ratios', i.e. fractions n+1/n) whose powers never equalize. This means that the cycles of 4ths, 5ths and octaves never coincide in any system of just intonation of pitches - thereby evidencing an unbridgeable gap between the expected and the empirical 'behaviour' of sounds. The 12th fifth for example differs from the 7th octave by a very small interval, called the 'Pythagorean comma'. From this 'fundamental' 'inescapable state of affairs' derives the impossibility of a 'rationally closed unity' (2004: 145-8; 1921: 3-5) since the cycle of fifths extends to infinity (Jeans 1968: 166). It is such impossibility of full consistency which, precisely, to Weber, is foundational since it makes for human creativity and movement, as Christoph Braun has shown (1992: 19; 1999: 185)⁹. For, rather than ever being resolved, the tension caused by the 'irrationality' of the empirical behaviour of sounds is harnessed in different ways for the constitution of music cultures into productive systems (and sensory fields) of structured yet practically infinite possibilities:

The various great systems of all peoples and ages differentiated themselves above all in the art and manner in which they covered up or bypassed this inescapable irrationality [the Pythagorean comma], or, conversely, put it at the service of the richness of tonalities (Weber 1991: 11-2).

Hence music systems fall within two broad types, which Weber elaborated into idealtypes, respectively the harmonic system (which seeks to 'cover or bypass' irrationality) and the melodic system (which plays with it). Although both systems recognise the octave, the 5th, 4th and the whole tone which results from their difference, progression from one tone to another in the harmonic system follows the principle of 'affinity' (Verwandtschaft), where tonalities immediately related through the cycle of fifths share the same sound material except for one note (2004: 147-8; 1921: 4); whilst, in the melodic system, progression mainly takes place through the 'proximity' of pitches (Nachbarschaft), starting from the division of the 4th (2004: 151; 1921:7). Weber was here taking up the two principles highlighted by Hermann von Helmholtz in his foundational theory of music, tone 'affinity' and 'proximity' of pitches. But he fundamentally transformed their meaning by granting them an autonomously structuring role as conflicting principles operating in two distinct rationalisation processes – harmonic and melodic (2004: 190; 1921:33; also 1988: 521). Helmholtz, for his part, had defined the principle of affinity indeed as an 'aesthetical principle, not a natural law', thus giving rise to different tone relations in 'modern music' and other music cultures, but had nevertheless rooted it in the physics of sounds. And, finding out that affinity was insufficient to account for scale formation in non-harmonic systems, he had suggested the other principle, proximity of pitches, as consisting 'in an endeavour to distinguish equal intervals by ear, and thus make the difference of pitch perceptibly uniform': but he had argued that this principle had 'subsequently had to yield to that of tonal relationships' (Helmholtz 1954: 249, 256). As Weber suggests, within the harmonic system, Helmholtz only

granted the principle of proximity a function of 'passage' between two harmonically defined but not immediately akin notes (2004: 151; 1921: 7).¹⁰

Weber referred to 'tonal ratio' as 'form-giving principle' (2004: 253; 1921:79), especially for the Western harmonic system. However this was too much of a concession to Georg Simmel's vocabulary of life and form (see below), since, as just suggested, Weber found what is 'form-giving' not so much in each principle in itself, but rather in the encounter and struggle of the principle steering one system with the other principle, as both are present in both systems.

The strength of the engagement and struggle is not symmetrical in both systems. Because of their organisation through the distance principle, melodic systems, of which Weber studied especially the variants of Ancient Greece and the Arabic world, can accommodate the contiguity of very small intervals and thus a 'richness of tonalities'. But this also makes them very vulnerable to the complete dissolution of all rationalised form: hence the attempt of melodic rationalisation to set 'tonal barriers' playing a similar role to those found in harmonic systems, e.g. the "melodic centre of gravity" uncovered by the Stumpf school, or 'even more importantly... typical melodic formulae' which come to characterise the equivalent of "keys" (2004: 191-2; 1921: 34) and most clearly with Pentatonic scales (2004a: 166; 1921: 17)¹¹. In music cultures closest to the melodic ideal-type, such tonal grounding is 'constantly threatened', and at risk of being captured by the fundamental orientation of the system to melodic 'refinement' (2004: 209; 1921: 48), i.e. an extreme fineness of expression and listening obtained through sounds very proximate to each other, and hence through the tonally 'irrational' juxtaposition of various intervals of the same kind (e.g. seconds or thirds).

There is no such wholesale domination of one principle by the other in the harmonic system: Weber takes a contrary view to that of the 'Panharmonicists' (Rameau, and, closer to him, Riemann) and asserts that melody 'cannot be derived harmonically' although 'it is, in truth, harmonically conditioned and bound' (2004: 150; 1921: 7). Melody carries with it, inside the harmonic system, the principle of tone proximity, which clashes with that of harmonic affinity and creates a tension, looking for resolution: 'Without the tensions motivated by the irrationality of melody, there would be no modern music, since these tensions count amongst its most important means of expression' (2004: 153: 1921: 8).

It could be said that the successive crystallisations of the tensions arising in the deployment of harmonic ratio served to maintain the tonal principle as the backbone of Western music, although at the same time always stretching it. These were the 'compromises' referred to in the footnote of the 'Essay on Categories' (see above), provided we understand by compromises not any kind of illusory middle ground, not the 'relativisations' between ultimate values made so to speak inadvertently at 'every turn' of everyday life (as per the 'Value freedom' essay), which in fact testify to adaptation to the dominant Gods of the day – especially the rationalised capitalist economy; but productive moments in the dynamic of a cultural domain. ¹² Crucial examples of such crystallisations for the harmonic system were the various forms of polyphony, the tonal integration of chromaticism and up to the decisive 'equalisation of inconsistencies' through equal temperament (2004: 243; 1921: 72).

Coming back to the relation between the expression of aesthetic needs and form defining artistic domains, we see that aesthetic 'refinement', encountered in melodic systems, always feels curtailed by rationalised form and indeed stems from the

overflow over form: rationalisation tends to remain external. 'Sublimation' evokes a different kind of relation, arising as a result of a process of 'inner rationalisation' of music – in particular of scales (2004: 246; 1921: 74-5), where innovations inspired by melodic and expressive concerns (e.g. chromaticism) are incorporated after a struggle and insofar as they can ultimately be harmonically grounded. In Charles Rosen's words, in classical style, 'a dramatic effect seemed at once surprising and logically motivated' (1998: 44). Expressiveness is conveyed through form, although it is also constantly stretching it and attempting to break free from it. Sublimated forms are forms which have turned into what Weber had called 'value-forms' (2005: 28), they are alive and inspire musical creation. But what the Music Study unveils is the specific kind of struggle which it takes in the harmonic system to 'sublimate' artistic expression.

Beneath and through the multiplicity of threads followed by Weber, of which I have only mentioned a few here, the Music Study uncovers the structuring of music systems through a dynamic of tensions between opposed poles. These tensions were initially unleashed by the impulse towards the rationalisation of the sound material, each tension feeding into yet another one on another plane: from the initial struggle between the theoretical and the empirical 'behaviour' of sounds, to that between the principles of affinity and proximity for the ordering of sounds, to, finally, the struggle between the systematicity of harmonic ratio and the expressivity of melody in the plane of composition and/or artistic expression. Weber summed up these struggles through his final evocation of an underpinning tension between 'musical *ratio*' and 'musical life', in all music systems (although particularly stark in 'ours'), that shapes musical creation as well as the aesthetic experience in ways which further fuel the inner tendencies of each system. This however might be seen as an unfortunate

summary, as the reference to 'life' to designate one of the terms of the tensions is rather evocative of Simmel's idea of life bursting out of form and reaching over, and points to a kind of ontological primacy of 'life' as well as to only one logic of form (Darmon and Frade 2012). Throughout his life and across different phases and domains of his theoretical elaboration (especially in his philosophy of culture and then in his philosophy of life), Simmel staged the face to face between 'subjective' and 'objective' culture, creativity and expression, life and form, and their ineluctable dialectical entanglement. Hence reification is always looming, already there in the very process of creation since all creation involves placing the expression of fluid subjectivity into a series of objectivated human creations, with its own logic (Simmel 1997: 64). By contrast, Weber's poles of tension, two equally possible logics of rationalisation, are not planted in different realms – and, as will become clearer below, their tension structures both the field of the possible for creation as well as the experience of these creations.

2. The configuration of Western harmonic music

The artists, creators, interpreters, the manufacturers of instruments, the art 'recipients' and amateur practitioners, all have to grapple with the tensions structuring music as a domain of culture. All are shaped by it and at the same time further contribute to it through their own interpretation and expression of it. ¹³ It is this 'grappling' with the immanent dynamic of the musical domain which, I will seek to show more in depth in section 3, 'inwardly' connects individuals to music and thus constitutes its 'spirit' – bearing in mind that the very way in which they 'grapple' with such dynamic has very vivid manifestations on the plane of social relations and is itself influenced by 'external', i.e. social, economic, wider technological factors. For now let us see how

this differentiated connection accounts, in Weber's approach, for positions in the music domain, which are thus primarily defined in relation to the inner logic of Western harmonic music (again, bearing in mind that this inner logic is itself socially, economically and technologically conditioned), rather than primarily in their relation to each other – in contrast, for example, with Bourdieu's homology between a space of works understood as 'system of differential gaps' and a space of schools or authors understood as 'system of differential positions in the field of production' (1994: 69). 14 Both Bourdieu's fields and Weber's domains are structured by tensions and struggles. But though these, for Bourdieu, are deployed on different planes (the space of works, and within it, 'genres, forms and themes', and the field of production), they revolve around a single axis, e.g. the transformation/preservation axis in the literary field (1993: 183), hence the homology between the various planes and the organisation of fields as fields of positions. Weber also recognises such struggle between advocates of the new and those defending the canons, but the structuring tensions arise not along one axis but between two principles of organisation of the material and means of action in the domain. As I will show below, positions and stances are formed in a particular conjuncture of that tension – carried by actors whose other interests and positions are likely to bear 'affinity' with these stances but are not organised by the same tension. It is through their capacity to assume and productively harness the tensions pervading the music systems that human as well as instrumental figures are called to take on a culturally dominant position within the field (1988: 517).

Melodic systems are prone to the flourishing of virtuosi singers and players, characteristically deploying their talents of expression in complex and endless chromaticism, which threatens to dissolve all tonal boundaries. In the Arabic system, for example, the only limit that was put in some specific epochs and places was

through the 'stereotyping' of melodic sequences (i.e. their fixing and repetition), but these did not resist the search for increasingly refined melodic expressivity and the accession of the 'virtuoso or professional artist trained in virtuoso-like performances as carrier of the musical development', whose 'entirely irrational expressive means' rely on specific qualities – 'recherché, baroque and affected aesthetic mannerism, as well as intellectualist gourmet refinement' (2004: 241-2; 1921: 70-1).

By contrast, Weber unveiled the relation of affinity between the ascetic ethos of medieval monks, their quest for methodical lack of ambiguity and the possibility of planning, and the development of the fixed notation of polyphonic pieces, against the 13th century practice of improvised counterpoint singing, e.g. by those appointed to the pontifical chapel. The domination of the monks of the Dutch missions over the chapel after the Pope's return from Avignon to Rome ensured the embedding of notation as against improvisation (2004: 237; 1921: 67-8), contrary to what happened in Byzance where musical arrangements were entrusted to professional song makers trained in the Hellenic tradition characteristically oriented to 'melopoeia', the art of melody (1988: 522). The decisive contribution of the fixed notation system was to make composition possible, and thus to create the 'real "composer" (2004: 238; 1921: 68). Contrary to the virtuoso artist whose aesthetic expression sets him/her in direct contact with the sensitivity of audiences, the composer mediates expression through the creation of new forms. It is thus the figure of the composer which can make the most of the particular 'tension between musical ratio and musical life' characterising the dynamic of the Western music system. Indeed it is that tension (provided we take it, as suggested above, as a tension between two principles rather than as an expression of a reification process) which makes such figure possible, and

constitutes the composer as the 'dominant type of human being' in the music domain.

A paradigmatic example is that of J-S. Bach, who 'brought counterpoint to its highest perfection' (2004: 215; 1921: 52), counterpoint being the form which by definition both encapsulates harmonic ratio and stretches it through the primacy of melody. 16 Weber's references to Corelli, Scarlatti, Mozart, Chopin and Liszt further highlight other ways in which composers have harnessed the tensions of harmonic music, especially as all of them were virtuosi players, whose art of composition freed/further developed the expressive possibilities of their respective instruments. A sense of the end of an era, of exhaustion of the momentum of the harmonic system is already there with Liszt, who had gone furthest in 'unlocking' the expressivity of the piano (2004: 278; 1921: 94). Thus not only were the composers of the harmonic system spurred to actualise the tensions between affinity and proximity, as well as between harmony and melody, but their very creation consisted of new 'value-forms' which impacted harmonic ratio in return.

It is in the analysis of the trajectories of instruments – and, accordingly, of their manufacturers, the instrumentalists as well as the composers associated with them – that the dynamic character and explanatory power of Weber's approach to the music domain appears most clearly. The key polarisation here, bearing in mind that the study is unfinished, is between strings and keyboards, and more pointedly between the violin and the piano; it starts in late Renaissance, a crucial period for the completion of the basic structures of the harmonic edifice, but one in which such completion was still in process.

The Renaissance period was that of technical "experimentation", which started on the artistic terrain before becoming the purview of science as the result, Weber tells us in his comparative study of the *Economic Ethics of World Religions*, of the 'singular blending of two elements':

the empirical skill of occidental artists, developed on the grounds of craftsmanship; and their ambition, determined through cultural history and socially, and rationalist throughout, to raise their art to a rank on par with a "science" and thus secure an eternal meaning for it as well as social worth for themselves (1991: 142).

However such blending of elements only 'typically' characterised Leonardo's art (*ibid.*). In music, Weber showed that the elements of the precipitate remained more separate.

On the one hand there is the figure of Zarlino and his 'experimental keyboards, at the core of this powerful wrestling of the Renaissance which operated with the characteristic artistic concept of "nature" (*ibid.*), since the Zarlino scale operates with 'pure' 3rds, 5ths and octaves. Zarlino was maestro di capella at St Mark's as well as a composer, and above all a theoretician of music, not a crafts keyboard manufacturer. Rather he 'had keyboard-like instruments specially constructed for [him] for experimental purposes' (2004: 273; 1921: 91). On the other hand, the manufacturing of the violin, viola and cello was the product of a 'very long period of experimentation' in Brescia and Cremona in Northern Italy, but wholly within the context of 'craftsmanship', and, thereby, wholly at the service of the 'expressive beauty of sounds – of a singing sound – as well as, probably, the elegance of the instrument' (2004: 260; 1921: 83). The Renaissance music domain staged the rational

experimentation with keyboards and the crafts-based experimentation with strings in parallel rather than organising their synthesis.

This led to a polarised positioning of both families of instruments in the domain defined by the tension constitutive of harmonic music. Thus, in the 17th century, organists and pianists (the technique of both instruments being tightly linked until the end of the 17th century) 'felt themselves to be, separately and in solidarity, the artists and carriers of the development of harmonic music, by contrast, notably, with string instruments, which "could not produce any full harmony" (2004: 273; 1921: 91-2). For its part, the 'creation of the great violin-builders lacked... a rational foundation'. String instruments, in their technical construction, were not meant to foster harmonic music; the few technical means which had facilitated the production of chords or the harmonic underpinning of melody (e.g. drone strings) were dispensed with in modern instruments, 'which rather seemed destined to carry melodic effects' (2004: 261; 1921: 85). Such polarisation was further bolstered by very concrete struggles for status, as for example when organists and pianists withdrew from the corporation of 'ménétriers' in France (from the old French 'menestrels'), which pretended to federate all musicians and was headed by a 'king', then referred to as the 'king of violins', precisely because they saw themselves as the true carriers of harmonic music (2004: 273; 1921: 91-2). 17 Violinists also fought to be recognised as 'artists' in court orchestras, where organists were enjoying such status (2004: 262; 1921:85).

However, with the further completion of the harmonic music system, and the increasingly structuring character of the tension between the melodic and harmonic principles due to the harmonic grounding of all resolution, no instrument, and hence no instrument manufacturer or player, nor any composer for that instrument, could be

the carrier of one principle or the other. In fact, the two families of instruments influenced each other, bringing each other more decidedly within the field defined by the tension between the two principles. Weber narrates the emancipation of the piano from the organ, 'first under the influence of dance in French instrumental music... then by following the example of the beginnings of virtuoso violin performance' (2004: 273-4; 1921:92). On the other hand, 'the formation of tones in the learning of string instruments is practised from the beginning at the piano' (2004: 279; 1921:94), whose fixed harmonically grounded temperament has dampening effects for the ear's capacity of distinguishing minute intervals: 'clearly, it is not possible to attain the fine hearing [that one gets] through instruments tuned through just intonation' (*ibid.*).

The domination, the 'unshakable position' of the piano today, for musical education, accompaniment, as well as through 'the immense wealth of its own literature' both entrenched harmonic ratio ever more by shaping our ear, and thus in truth by shaping the type of listener that the harmonic system required; and, at the same time, made its limitations (e.g. the closing of the ear to finer intervals) very manifest, as the construction of pianos, 'conditioned by mass sales', resisted moves towards a new phase of experimentation (2004: 279; 1921:95). It is essentially through the piano that the music domain and the capitalist economy became articulated with one another, and whilst this articulation brought about the 'technical perfection' of the instrument (through the ferocious competition between instrument makers engaged in very modern business and marketing techniques) (2004: 277; 1921:93-4), it also entrenched equal temperament as the norm for the tuning of instruments (this was not the case before the middle of the 19th century). The last pages of Weber's Music Study appear to suggest (albeit very sketchily) that developments on the music

markets contributed to harden the tension besetting harmonic music and crystallised in equal temperament, – thus in effect pushing towards its explosion at the turn of the 20th century. We thus see how Weber conceived of the interplay between the own dynamic of the capitalist economy and the momentum of artistic domains: in this case, it took place with particular intensity through the piano as both object of mass consumption and carrier of the harmonic ratio. By conceptualising domains of culture, including art, as spurred by their 'own logic', Weber suggested that relations of these 'cultural contents' to economic forms had to be analysed in the same ways as those between social formations and the economy, i.e. in terms of 'mutual adequacy or inadequacy', but never of pure or mere determination and dependency (2009: 3). However, as these logics give rise to dynamics of tension in their domains of deployment, Weber also made them inherently unstable and more or less amenable to pressures conditioning their paths of expression.

3. The inward connection to music

In this section I turn, finally, to Weber's sketched analyses of the way in which artistic will, the inner bonding of artists to their art, 'works with' the tensions in its domain of deployment; as well as to the evolution of the other key inward connection to music: that of the listener.¹⁹

The first connection is not directly evident from the reading of the Music Study, and we first need to make the detour of the 'Value freedom' essay to find an explicit account of the way in which the tension between rational consistency and expression provides the matter with which creators have to work – in Weber's analysis of the springs of Gothic architecture, rather than music:

It was the encounter between this primarily technologically conditioned revolution and certain contents of feelings underpinned to a large extent by sociological conditions and the history of religion which supplied the essential elements of that material with the problems with which artistic creation worked in the Gothic epoch (Weber 1988: 521).

The notion of 'encounter', a translation suggested to me by Jean-Pierre Grossein²⁰, conveys the fortuitous character of the emerging relation between new rational technology and 'certain contents of feelings' which came to define the '"atmosphere' of inner Gothic spaces' (2004: 261; 1921: 84). Indeed the German verb thus rendered, $zusammenstie\beta$ (literally 'ran into', 'collided with', or 'bumped against'), is formed with the same radical as the one found in Weber's description of the fate of rationalisation based on the physics of sounds in music, which always 'stumbles ($st\ddot{o}\beta t$) on the fatal "comma" (Weber 2004: 248). Nothing obvious emerges from that encounter, and it is only the artist's 'will' and desire (*Kunstwollen*) which will work upon this as its matter and transform it into a specific relation between form and expression.²¹

Weber had suggested (in the first meeting of the German Sociological Society) that music history should consider 'the question of the relation between artistic will and musical-technological means', whilst sociology should focus on 'the relation between the 'spirit' (*Geist*) of a particular music and the *overall* technological basis that influences the vital feeling and tempo of our present-day and (once again) metropolitan way of life' (2005: 31, 1924: 455). On the basis of the problematisation by the Music Study of the 'immanent logic' of 'musical-technological means', I suggest the following reformulation: the way in which the artistic will of composers

(but also instrument manufacturers and to a lesser extent performers) gets to grips and works with the momentum of the music domain constitutes the 'spirit' of the music domain and the subject matter of the musico-historical discipline. The particular affinities between this spirit and 'technological bases', as well as specific carrier strata, are the purview of sociology.

If this is so, then characterising the inward connection to a sphere means assessing the way in which 'will', that is to say desire, 'works' with this inner tension of its domain of deployment: whether it seeks to escape it, ignore it by resolutely embracing one of its terms, or whether it confronts it, seeking to 'draw out the definitive consequences of [the composer's] own musical conception' even in the face of obstacles to its deployment (2005: 30). We can see how such assessment allows for positioning creators in an artistic domain according to their specific contribution to its inner dynamic and the direction they have imprinted to it amongst the many possible. Weber was adamant that the assessment of technological 'progress' in art history was totally distinct from aesthetic valuation (1988: 521). But such emphasis rings oddly if we consider that aesthetic judgment bears on a creator's response to the questions that demand addressing in an artistic domain: does not Weber discuss the poetic stances displayed by Emile Verhaeren and Stefan George (1924: 453)?²² Does not he commit precisely this kind of valuation when he states that Bach 'brought counterpoint to its highest perfection' and that Liszt unlocked 'all the ultimate expressive possibilities' of the piano?

He also associated the 'most modern developments of music in the direction of a corrosion of tonality' 'at least in part' with the 'intellectualist-romantic turn of our enjoyment towards the search for effects and what is "interesting" (2004: 252; 1921:

79). Composers seem here to be ineluctably drawn into the 'intellectualist-romantic' turn of a generation of listeners who were also Weber's audience in his conference on 'Science as a Vocation and Profession': young people who sought to escape from the rational intellectualism of science by throwing themselves into 'the modern Romantic intellectualism of the irrational' (1994a: 12). Faced with the extreme enunciation, in equal temperament, of the tension between the demands of expression and harmonic ratio, composers have turned to unbridled chromaticism, which, to Weber, amounts to a 'flight from the world' of music at that point in time. But the alternative cannot be the composer's mere adaptive reproduction of the status quo in the contemporary 'world' of music demanded by another section of the listening public. Before figuring out what creative stance Weber appears to be demanding, we thus need to understand the other inward connection – and contribution – to the 'spirit' of music: that of the listener.

In the wake of Helmholtz's analysis of hearing as culturally shaped taste and habit (1954: 234), Weber highlighted the way in which 'our harmonic conception of music' (Weber 2004: 190; 1921: 33), 'the sense of harmony' (2004: 252; 1921: 79), work with the listeners' capacity to 'interpret the notes according to their harmonic provenance' and 'even to "hear" them actually in subjectively different ways' (2004: 251; 1921: 78-79). The creator's possibility to play with anticipation and resolution, which is at the core of Western harmonic music, depends on this harmonic disposition of the ear. In the same way, in melodic systems, the 'ear' learns to 'profoundly enjoy' the multiplication of 'irrational intervals' (2004: 242; 1921: 71), and in the Antiquity, it was the trained 'fineness of the ear' which gave the 'melodious refinement of the musical culture ... its definitive stamp' (2004: 278; 1921: 94).²³

But the tension encapsulated in temperament works its way through hearing. The ear learns to recognise the harmonic provenience of tones (in the sense of recognising modes and keys), but at the same time the correction mechanism brought by the distance principle means that intervals which would be considered different (for example on instruments tuned according to another system or through just intonation) are here identified to one another, hence blurring the perception of sounds. Fineness of hearing seemed to refer, for Weber as for Helmholtz, both to the capacity to distinguish equal intervals as well as minute intervals by ear; and to the feeling for the just intonation of intervals; in other words fine was the ear that tasted the 'baroque' scales of oriental music, fine is the ear that tastes the melodiousness of a 'natural' third. But equal temperament dampens both.

The disposition of the ear takes 'habituation' (*Gewöhnung*), indeed it is the condition for 'profound enjoyment' (*Genuß*) (2004: 242,278; 1921: 71,94), beyond the mere 'tasting' of musical effects. Yet, as explained above, habituation has become entrenched, scripted by the piano: as the chief instrument for musical education becomes an object of mass consumption, there emerges and comes to prevail an economic logic to the persistence of equal temperament. Through this connection, the productive tension of the harmonic music system becomes reified.

Where did this leave the creative stance? To Weber, as to Adorno, creative stances mattered to 'withstand' reality in the face of commodification (Adorno 2006: 102). However the paths they outlined for these struggles were radically opposed. Weber's position can only be surmised on the basis of his analyses in discussions of lyric poetry rather than music, in particular in a debate with Werner Sombart on 'technology and culture' at the first meeting of the German Sociological Society, and

in a letter to Dora Jellinek written just before. He evoked the two stances of lyric poetry in the face of the 'frenzy' of the modern metropolis - adaptation and enthusiastic surrender, as in the case of Emile Verhaeren, who looked for forms immanent to urban movement; or escape, flight from the world, by constituting form as last 'impregnable fortress' in the face of modern de-personalisation, ²⁴ as was Stefan George's choice at the cost of 'dismembering' all passion in himself so as to elevate form from de-personalised grounds (1994b: 561; 2005: 29). Interestingly, for Adorno, the 'rigidification' of the new music (2006: 19), which can be compared to George's de-personalising endeavour as it took place through the total subjectivation of form and entailed the petrification of subjectivity, was the only possibility left to new music for 'withstanding' social reality. Adorno's judgment on new music thus seems to echo Simmel's and Lukács' judgment on George, linking the universality and truth of his work precisely to such de-personalisation (see Simmel 1995: 34 and Lukács 1974: 83). Weber's assessment of Verhaeren and George seemed to point to another, third, possible stance for the artist: to create forms through a struggle to the full with the forces pervading the 'matter' of lyric poetry, or music – which meant first: letting oneself be affected by these forces without submerging nor extracting oneself. Weber's conception of the artistic stance thus echoed that of the scientific and political vocations.

Conclusion

In this article I have proposed a starting analysis of Weber's elements of response to the question of the possibility of an account of art from the social and cultural sciences. Weber actually asked this question for all domains of action, not out of any belief in the 'autonomy' of these domains (autonomy is only constructed idealtypically), but rather due to his premise that no domain of human action can be reduced to another, even though the economy and economic relations tend to determine other relations to a very large extent.

Weber's gesture crucially starts from the matter of music (or that of politics, or science) and the historically conflicting logics for its organisation: it is these which organise music as field of tensions, thus delineating spaces for musical conceptions and practices by socially situated 'carriers', for their encryption in musical technologies and conventions as well as in our ears and embodied listening habits. Thus, underpinning Weber's understanding of domains of culture, there lies a conceptualisation of historical movement, or 'inner momentum', in different music cultures, fuelled by tensions between opposed logics of organisation/rationalisation and by their interplay with dynamics of music production and consumption. It is such momentum which orders music configurations, and shapes engagements and the social relations within them. And it is the notion of such a momentum of logics in tension which perhaps escapes current attempts at theoretical renewal (Born 2005).

Weber had wished to undertake a sociology of 'cultural contents' (which he referred to as comprising art, literature, and 'Weltanschauung'/ science) and their relations to the economy once he had completed his analysis of the relation of 'structural forms' of social action to the economy (in Economy and Society) (2004: 76). In subsuming both arts and science under cultural contents, Weber pointed to the tight relation he established between scientific and artistic creation: thus the inquiry of 'Science as a vocation and profession' into the 'external' ('social') conditions, the 'inner' dynamic of rationalisation of science and the interrogation on the possibility for 'vocation' in such configuration, could have been carried out for art domains and artistic vocation

as well. Indeed 'vocation' designates that steadfastness in one's creative will or desire which impels one to confront the tensions besetting the domain of deployment of such desire: in other words, the creative 'stance'.

The last paragraphs of each of the two sections of the 'Music Study' lead to an acute perception of the impasse at which Western harmonic music had arrived – and of the reasons for such impasse, not only for composition, but for the manufacturing of instruments, for practice and listening as well. The musical situation seemed to beg creative gestures (in principle not limited to compositional acts – but also technological invention, musical exploration) that did not withstand tensions which had become frozen, but rather reinstated them and redefined their terms: a vindication, ex-ante, of the "Schoenberg event" (Nicolas 1997: 200)?

¹ Following Christoph Braun (1994), admittedly the authority on Weber's writings on music, I refer to Weber's main publication on music as the 'Music Study' as it mostly corresponded to what Weber considered as history and only to a more limited extent to his conception of a sociological study (and this despite the fact that Weber himself referred to his study as 'Musik-soziologie', e.g. in his correspondence with his wife and his friend the pianist Mina Tobler). Braun has established that Weber worked on the study in 1912-3 and went back to it in 1917 (for his essay on 'The Meaning of "Value Freedom" in the Sociological and Economic Sciences' – referred to as 'Value freedom' essay in this article) and then again in 1919/1920. The manuscript remained unfinished and was published as such in 1921 thanks to Marianne Weber's transcription (Braun 1992: 135-9).

² For ease of reference I systematically quote the Music Study first in the volume edited by C. Braun and L. Finscher for the MWGA (2004), and then in the 1921 edition by Theodor Kroyer and Marianne Weber, which had been the standard source before the Braun/Finscher volume. The MWGA volume indicates the page numbers of the 1921 edition throughout.

- ³ This section draws on the work of Christoph Braun as well as the editorial apparatus of the MWGA volume. I have also resorted to the very useful reading guide proposed by Jean Molino and Emmanuel Pedler for the French translation of the Music Study (Weber 1998). Finally my overall reflection on Weber, music, and the shaping and possibility of the creative stance, has developed through countless discussions with Carlos Frade.
- ⁴ This universal command is of a general character and gives rise to the most varied processes of rationalisation (1991: 209).
- ⁵ These logics must be understood as 'immanent' (Weber 1991: 214) to the ideal-typical life orders/value spheres, since it is these logics which, so to speak, sustain the ideal-typical consistency of the orders and spheres, a consistency never achieved in reality. This concept should thus be distinguished from the alleged "inner logic" of sounds' referred to in the Music Study in an allusion to Riemann's theory (2004: 207; 1921: 46).
- ⁶ The group of 'professional musicians' Weber had in mind was the aiodic group (singers in Homeric times). See glossary in Weber 2004.
- ⁷ In spite of the ethnocentric reference to 'aesthetic needs', Weber's concern is not to define what constitutes art in a Schopenhauerian manner as a pure object of selfless contemplation (Dahlhaus 1990: 39), but much more to relate the historical development of a partly autonomous sphere of music with the realisation that musical expression makes its own demands.
- ⁸ The translation of *Richtigkeitstypus* literally as correctness type, as proposed by Hans Henrik Brunn, seems judicious (Weber 2012: 280). I provide a literal translation of *Entwicklungsmoment* as developmental momentum, rather than the more standard translation as developmental factor, as I believe that this is one of the instances in which Weber contrasts historical analysis, which looks at the inner dynamic of 'areas of culture', and sociology, which analyses the external influences on such dynamic. All translations are my own unless otherwise stated.
- ⁹ It is thus ironical that Adorno qualified his appreciation for Weber's study on the grounds that it merely staged the progress of rationalisation (1999: 5).

¹⁰Weber warned against the temptation of generalising the possibility that the "natural" affinity of sounds' (through consonances) may have acted as dynamic factor for the evolution of music (2004: 179; 1921: 25) – a warning which thus put at a distance both Helmholtz and Riemann, however opposed their positions had been (Weber 2004, especially pp. 58-61).

- ¹¹ In Molino and Pedler's assessment of Weber's views of Pentatonic, Weber's key arguments are still relevant today, even though many of the assertions of the text now appear ill-founded (unsurprisingly given the disparate and scarce evidence available at the time on this subject) (Weber 1998: 220).
- ¹² Compare Weber 1988: 438 and 507.
- ¹³ Philippe Despoix has also emphasised the inter-relations in Weber's construction of the specific type of inner rationalisation in the Western harmonic system, through his illuminating analysis of Western harmonic music as a 'constellation of reciprocal causalities' constituting the 'musical medium' (2008: 354).
- ¹⁴ The original paper was delivered in 1986 at the University of Princeton. An English translation was published in 1993 (Bourdieu 1993: 182). My translation is slightly different.
- ¹⁵ Wilhelm Hennis (2000) has shown the centrality of the question of the fate of the human being developing in the modern world to Max Weber's work as a whole.
- ¹⁶ Weber also attributed the 'practical' dissemination of equal temperament to Bach, as was current in his time, but this somewhat unclear formulation does not seem to correspond to what has since been established, i.e. that Bach was himself no advocate of equal temperament (Braun 1992: 188, note 111).
- ¹⁷ Braun and Finscher explain that the relations between the organists and pianists and the corporation were ridden with conflict, including through legal means (2004: 274).
- ¹⁸ Here the term field seems warranted, since the dynamic is fuelled by polar relational oppositions, as in Bourdieu's understanding.

- ¹⁹ Weber was also interested in the inward connection of the instrumentalist to music, e.g. through the choice of an instrument and the greater or lesser possibility of expression of one's singularity in performance (Honigsheim 1968: 88).
- ²⁰ I am grateful to Jean-Pierre Grossein for his insights on this key notion. JP Grossein's incomparably rigorous translations and the editorial apparatus provided, including through highly informative introductions, are a precious resource for any work on Weber.
- ²¹ My analyses in this section differ from Christoph Braun's interpretations, as he subsumes *Kunstwollen* under 'life' in the ratio/life equation (1992: 131). Accordingly my understanding of 'spirit' is different as well.
- ²² I cannot address Weber's analysis of lyric poetry in the confines of this article. However such analysis forms part of the wider research I am undertaking on Weber's cultural sociology.
- ²³ As explained by Braun and Finscher, the idea of the fineness of the Greeks' hearing was a trope at the time (Weber 2004: 54).
- ²⁴ Here the TCS translation is misleading, as it suggests that the 'fortresses' of form have been 'generated by' technology rather than as a protection against it.

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