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The connoisseur's emancipation of dissonance: how changing the experience of musical tension can inform individual responses to organizational paradoxes

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ABSTRACT

Although literature identifies a repertoire of constructive and defensive responses to paradox, the problem of overcoming dissonance remains. While a both-and response at the individual or collective level is desirable, individuals encountering paradoxes will likely respond defensively, separating tensions into either-or poles. Insight into how individuals can work with tension created by dissonance is limited. Musical composition may have something to share. Since the Renaissance, composers have exposed listeners to constructively responding to tension through increasingly dissonant music. Arnold Schönberg's *dodecaphonic (twelve-tone)* system emancipates the constraints of dissonance, reducing listeners' resistance and developing a connoisseur's appreciation of structural incompatibilities.

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We shall have no rest, as long as we have not solved the problems that are contained in tones […]. I think we stand only at the beginning. We must go ahead!

(Schönberg 1978, p. 314)

1. Introduction

In recent decades, the study of paradoxes and their embedded and persistent role in shaping organizational systems has gained significant attention in management research (Gaim *et al.* 2022). Putnam *et al.* (2016) argue that tension arising from apparent incompatibilities in paradoxes underlies the defensive response; hence, multiplying incompatibilities will increase tension. Incompatibility is experienced as dissonances by individual actors fearing alternatives inconsistent with their existing values and priorities (Hampden-Turner 2021).

There have been calls to move towards thinking about complex problems as systems of multiple paradoxes (Jarzabkowski *et al.* 2021), simultaneously exerting centripetal and centrifugal forces on both scholars and practicing managers (Schad *et al.* 2019). However,

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without a mechanism for reducing defensive responses and resistance to the experienced tension associated with dissonance at the individual level, there will be little hope of leveraging the creative power of paradoxes in organizing to change the status quo. Therefore, it is timely to advance paradox theory 'towards richer, more complex insights by learning from disciplines outside of organization theory' to unpack such mechanisms (Bednarek *et al.* 2021, p. 3).

This article turns to music because, like paradox theory, music is also characterized by the persistent existence of both inherent and socially constructed tensions (Helmholtz 1998, Sethares 2005); similar to paradox (Hahn and Knight 2019), dissonance in music is experienced as tension when incompatible note frequencies create interference that creates a discomforting experience in the listener (Helmholtz 1998). Further, it argues that paradox scholars can learn from how musical theorists freed themselves from the conceptual constraints upon the richness of creative artistry to enrich their art. Specifically, drawing on Arnold Schönberg's set-based approach to composing music, I establish how, in musical terms, an epistemological revision of musical constraints via such an approach emancipated composers from theoretical limitations for using dissonance and freed listeners, schooled in harmonic tonal musical structures, to enjoy more dissonant and complex combinations of tones. The resultant dodecaphonic system (from the Greek dōdeka [twelve] and phon [tone, pitch]) relieves tensions created by what was, essentially, a socially constructed theory of music. It reconstructs previous reactions to dissonances that arise from the tension between two or more tones by introducing tone rows as a set-based approach to maintaining each tone's interdependent nature (Krenek and Metzger 1952, Harrison 1996). Finally, just as sophisticated listeners of music are educated to appreciate apparently dissonant music, practicing managers can become connoisseurs of dissonance and find ways to constructively leverage the multiplicity of paradoxical forces identified by organizational scholarship (Helmholtz 1998, Sethares 2005, Smith and Lewis 2011).

I will argue that applying this process to paradox theory allows us to unpack multiple paradoxes as a set of individual poles that retain interdependency. This approach offers the possibility of consolidating multi-voice paradoxes into a row of poles ordered by the salient role that they play in a system of multiple sources of tension from various organizational levels, showing that they are all part of a larger salient whole that contributes to the musical appreciation or the forces creating dissonance in the organizational system. This opens up new avenues for exploring the complexity of powers among multiple poles from multiple paradoxes.

This article begins by examining the evolution of dissonance in classical Western music, tracing its development from the Renaissance to Schönberg's dodecaphony in the 1920s. The discussion of musical tension and dissonance provides a foundation for the need to suspend the traditional tonal system. It concludes by explaining why the complexity of dodecaphony requires a connoisseur or a sophisticated listener whose ear has been deliberately trained.

To draw parallels with organizational paradox theory, the article then explores the origins of organizational tension, considering both inherent and socially constructed paradoxes and various responses to them. The ontological similarities between musical and organizational tension prompt the question, 'What can paradox theorists learn from Schönberg's emancipation of dissonance?'. The comparison highlights differences due to epistemological impacts

on the perception of tension. From this, the article suggests that Schönberg's emancipation of dissonance offers insights for managing organizational incompatibilities arising from multi-level, multi-tension, and multi-voice structures and translating the experience of dissonance into something with creative potential. The discussion emphasizes the need for set-based emancipation of paradoxes and the need for paradox connoisseurs to work through a consolidated set of the most salient poles from multiple individual and organizational paradoxes.

1.1. Before the beginning – the use of dissonance and tension in music

Music is a complex, involving an auditory experience that listeners perceive as a coherent and dynamic progression of musical events in which the relationship between musical tones is predetermined by a strict set of rules. The listener hears patterns of consonance and dissonance, which a composer has combined to trigger emotion, but always with the expectation of stability, completeness, resolution, and unification by the end of the piece, conditioned by the listener's past experience (Bigand *et al.* 1996). Musical theory is used to explain what listeners experience and to provide composers with a system to compose what they want the listener to experience.

Theoretically, dissonance in music serves to create arousal in the listener, which produces tension, and when patterned within a system of otherwise consonant tones, conveys meaning. Dissonance occurs both when incompatible frequencies of notes in close proximity clash with one another and because the listener's ear has been trained to be comfortable with certain mathematically specified distances between frequencies judged to be in harmony. Thus, there is both a real and a socially constructed aspect to dissonance.

Historically, Western music gradually evolved theory for constructively using patterns of dissonance to trigger emotion and convey meaning. Starting with modal vocal music in the Renaissance through tonal music in the Baroque, Wiener Classical, and Romantic eras, it became progressively more advanced until it reached a tipping point at Modernism with the 'complete suspension of the tonal system' (Leibowitz 1975, p. 68). For more than four centuries, listeners' responses were progressively conditioned to more complex music through experience, but, until very recently, it has mostly remained within the limits of the tonal system (Burkholder *et al.* 2019).

Figure 1 maps this progression of the use of dissonances era by era on a continuum from the level of high consonance to emancipation.

The culmination of Renaissance music with Palestrina (1525–1595) involved simple counterpoint in which the treatment of dissonance was strictly limited to one clash at a time (Jeppesen 1970). Dissonance became more useful in Baroque music with the development of the tonal major/minor system; Bach's music (1685–1750) is a useful illustration of its extended use (Spitta 1992, Braunschweig 2003). In the Wiener tradition, Mozart (1756–1791) and Beethoven (1770–1827) introduced more advanced treatments of multiple dissonances (Zaslaw and Cowdery 1990, de la Motte 1995).

However, tonal music in the Romantic period reached its limits for conveying meaning with, among others, Wagner (1813–1883). Treatments of dissonance became so involved that it became impossible to explain the listener's experience within the existing theoretical system, so composition and the listening experience became meaningless. The level and usage of dissonances increased over five

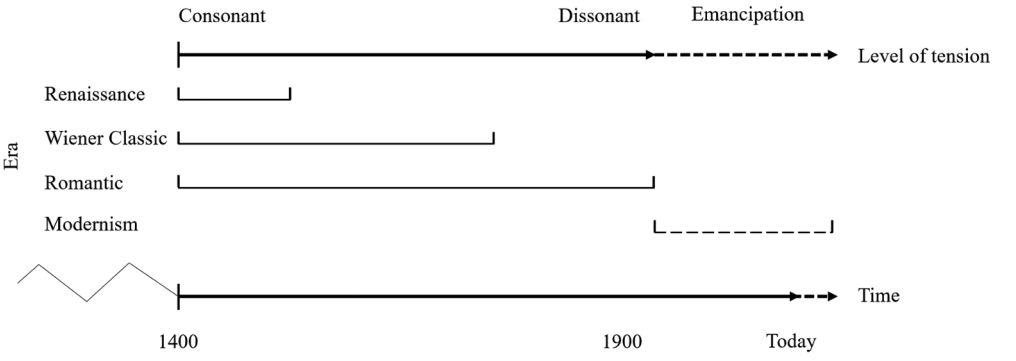

Figure 1. Development of the usage of dissonances in each historical era. (Adapted from de la Motte 1995)

centuries to the point where the existing system could not be further developed (Overhoff 1967, de la Motte 1995). A return to meaning required a new underpinning to the musical theory that addressed the fundamental problems 'contained in tones'.

Schönberg's response (1874–1951) was to propose a new atonal system of dodecaphony, which emancipated the composer and the listener from what had become an inherent and socially constructed system of tension resolution. Dodecaphony consciously defeats the previous tonal methodology of musical composition with its comfortable and predictable patterns of tones that have a strict and limited space for variation (de la Motte 1995, Schönberg 2010). Understanding the differentiation between the inherent and socially constructed ontology of musical tension is crucial to further unpacking the subtle differences of the phenomena.

1.2. The ontology of musical tension

The ontology of musical tension is both inherent in the system as a physical oscillation of the tones and socially constructed based on how the music is composed (Helmholtz 1998, Sethares 2005). Tones are the music material, and Pythagoras of Samos (ca. 585–500 BCE) was the first to investigate the frequencies of tones using the monochord instrument. He found that each tone comprises an individual series of overtones, and 'when the string was allowed to vibrate first at its full length and then stopped at half its length, the two sounds bore a pleasant, harmonious affinity to one another: they were separated by an octave' (Maor 2018, p. 13). From subdivisions of a string, Pythagoras defined *the circle of fifths* and the 12 tones based on integer subdivisions of the fundamental tone, which, together, constitute the foundation of Western music up to Modernism (Helmholtz 1998). Furthermore, he discovered that tones from subdivisions closely related to the fundamental tones (intervals of *octaves, fifths*, and *fourths*) produced consonant, pleasant combinations of sounds, while tones from subdivisions further away from the fundamental tone (intervals of *thirds, sixths, sevenths*, and *ninths*) produced dissonances (Maor 2018).

Thus, inherent musical tension exists independently of the listener's construction, determined by the frequency of the overtones of two notes (Bowling *et al.* 2010). If there is interference between the frequencies, the physical oscillation of the tone causes the discomforting phenomenon of beating (dissonance) (Helmholtz 1998). For example, playing two tones right next to each other on a piano produces a sound most people would call dissonant because the overtones from the subdivisions of the fundamental tones are very distant, whereas playing two identical tones will be perceived as consonant because their overtones are closely related.

Yet, musical dissonances can also be the product of a listener's socially constructed experience. Dowling and Harwood (1986) argue that experience leads to adaptations through a learning process that can potentially invent new tonal systems (Terhardt 1974). Schönberg (2010) challenged the socially constructed status quo in music, arguing that '[w]hat distinguishes dissonances from consonances is not a greater or lesser degree of beauty, but a greater or lesser degree of *comprehensibility*' (Schönberg 2010, p. 216, emphasis in original). He thus proposed that there is a way to move beyond learned responses to inherent dissonances through comprehensiveness and experience.

Listeners have attributed the dissonant and consonant experience to the relation between the two tones' frequencies because composers have only produced music that is harmonious; this presents an initial challenge to the reductionistic perspective of the inherent ontology defined by Helmholtz (1998). Further, the compound structure of music can generally be divided into two opposing styles: homophony – where multiple voices or parts move vertically together rhythmically, often with one dominant melody – in contrast to polyphony – where multiple independent melodies are interwoven horizontally, as visualized in Figure 2.

Heterophony is a merger of homophony and polyphony, having vertical chords underneath the multi-voice polyphony (de la Motte 1981, 1993). This combination of consonances and dissonances in vertical and/or horizontal structure has the power to create multi-voice structures based on a foundation of both inherent and socially constructed musical tension.

1.3. The necessity of the suspension of the tonal system – dodecaphony

Schönberg's (2010, p. 216) rejection of the tonal system 'grew out of necessity' and marked a historical turning point similar to the disjuncture between modal and tonal music. In developing dodecaphony, Schönberg consciously abandoned all the classical functions of tonality supplanting them with a '[*m*]*ethod of composing with twelve tones*

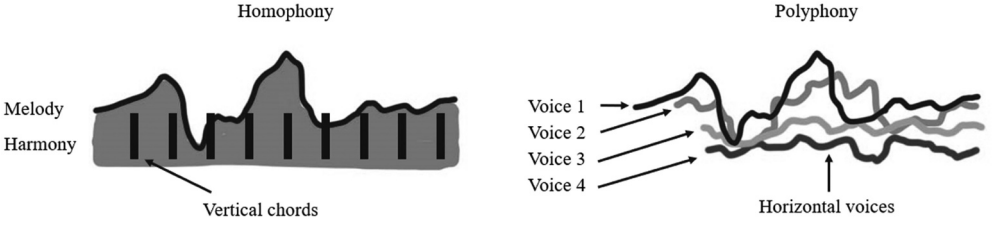

Figure 2. The vertical and horizontal structure of the opposing homophony and polyphony. (Adapted from de la Motte 1981, 1993, 1995)

which are related only with one another' (Schönberg 2010, emphasis in original) without regard for their harmonious compatibility. As a method of composition, dodecaphony relies on one unifying idea with a strictly defined set of rules (Hvidtfelt Nielsen 2003), '[a] style based on this premise treats dissonances like consonances and renounces a tonal centre' (Schönberg 2010, p. 217). This allowed tremendous changes in compositional techniques and was fundamental to what Schönberg called 'the emancipation of the dissonance' (Schönberg 2010, p. 216). This refers to the comprehensibility of tension in the sense of both comprehensiveness and the ability to grasp the entirety of the system through the rules.

Dodecaphony involves a *predetermined* set of 12 tones, the raw material for all Western music. These can be transposed, inverted, or retrograded individually or in combination using various techniques for composing homophony, polyphony, segmentation, aggregation, melody, rhythm, harmony, permutation, partitioning, hierarchical structures, iso-morphism, and multi-dimensionality (Hvidtfelt Nielsen 2003).

Figure 3 shows how the 12 tones are represented on a piano keyboard, where the tone number in the table explains the position in the row of tones. Illustrated as a tone row, the position in the row is represented by the size of the circle. Schönberg composed each piece of music from a tone row with a unique order of the tones. Therefore, although the number of unique tone rows equals 12^{12} combinations, each piece of music is recognizable to the sophisticated listener by its *unique* tone row (Krenek and Metzger 1952, Leibowitz 1975, Haimo *et al.* 1984, Hvidtfelt Nielsen 2003, Schönberg 2010).

For example, Figure 4 shows how Schönberg defined a unique tone row for his violin concerto Opus 36. That order of the set of 12 tones is only used in that single composition. The tone number in the figure refers to the initial tone row in Figure 3, where the size of the circle depicts the order in the tone row for this particular row used in the violin concerto.

Schoenberg's dodecaphonic system challenged traditional notions of harmony and tonality, providing a framework for composers to explore new musical possibilities.

It opened up new avenues to create more innovative and complex musical structures by organizing tones in a set order and treating them as equal entities, emancipating the inherent and socially constructed experience of tension in music from previous eras. Experienced listeners can determine the tone row by either hearing or analyzing the music and become engaged by the complexity of differences arising from the unique tone

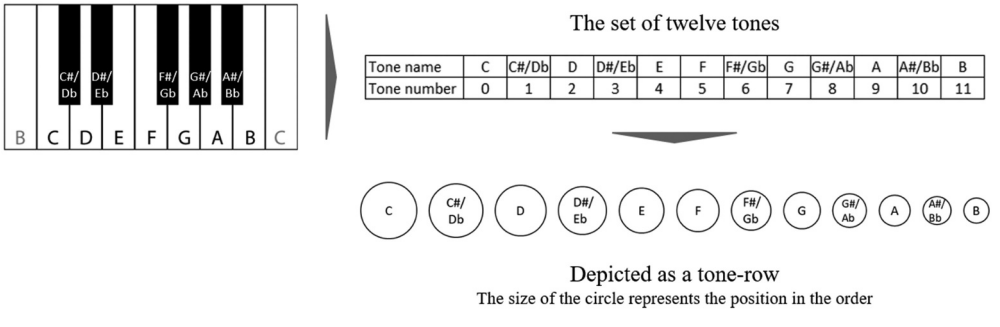

Figure 3. The set of 12 tones of Western music is illustrated and derived from a piano keyboard.

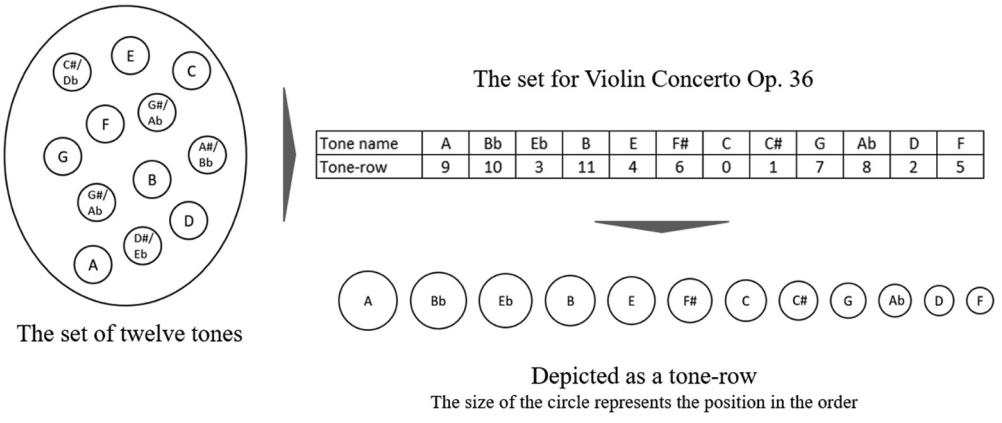

Figure 4. The dodecaphonic tone rows for schönberg violin concerto op. 36.

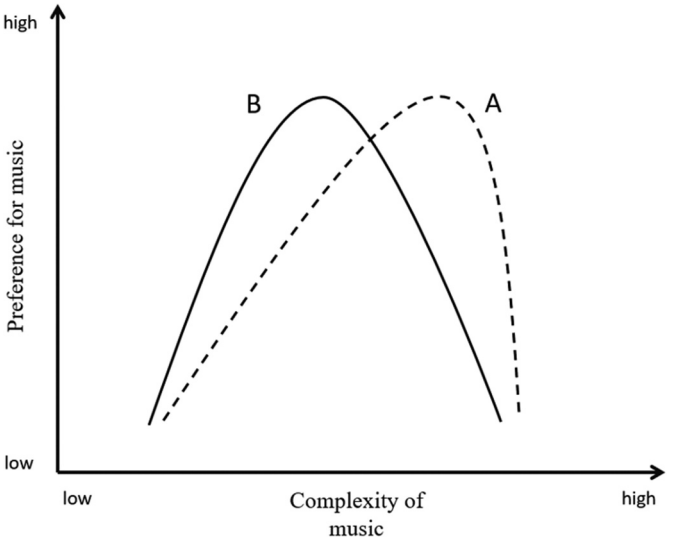

Figure 5. Inverted U-shape relation between stimulus complexity and preference. (Adapted from Dowling and Harwood 1986)

row rather than aroused by predictable patterns of similarity and difference, which were the hallmarks of tonal music (Schönberg 2010).

1.4. The connoisseur – a sophisticated listener

Although dissonance can stimulate listener arousal (Berlyne 1971), perceived limits remain on how much simultaneously complex change can be tolerated before denial or obstruction occurs (Hutchinson and Knopoff 1978). Such limits stem from cultural experiences and the listener's learned preference for musical complexity. For example, initially, music students learn that consonants are ideal, comfortable, and somehow natural (Kramer 2004). They think of dissonance as the threatening other which has to

be resolved into consonance 'since it is understood as the absence of consonance' (Kramer 2004, p. 362). However, as music students become more sophisticated, 'they begin to understand dissonance as a musical experience in and of itself, not just as the lack of consonance' (Kramer 2004, p. 362). Furthermore, when the students attain Schoenberg's state of 'emancipation of dissonance', they recognize a reversal: consonance now feels like the threatening other, while dissonance becomes a 'more comfortable auditory experience' (Kramer 2004, p. 362).

Since the underlying dodecaphonic theory for the treatment of dissonances is more complex than previous tonal music, as Dowling and Harwood (1986) argue, in learning to tolerate that complexity, a listener's taste, and experience become more sophisticated and eventually demands the complexity to avoid boredom. Huron (2008) provides a parallel from the perspective of literature. People tend to read a crime novel only once because they already know the ending; in contrast, more complex literature is read more than once and engages more sophisticated readers in sorting out the complexity. The relationship follows an inverted U-shape function curve, as shown in Curve A depicts how listeners with higher experience tend to prefer music with higher complexity. In comparison, listeners with less experience who tend to like music with less complexity are depicted as Curve B, see Figure 5.

For example, music scholars posit that a child's perception of even consonance is less refined than that of an adult, hinting that any reaction to musical similarity and difference is a learned response (Cazden 1945). Ericsson and Pool (2016) further argue that musical excellence is not an inborn talent and propose deliberate training as a new approach where 'learning now becomes a way of creating abilities rather than of bringing people to the point where they can take advantage of their innate ones' (Ericsson and Pool 2016, p. 16).

Similarly, Kegan's (1998) constructive development theory suggests that the mental capacity to differentiate and integrate is learned and becomes more complex with both age and education, rarely becoming sufficiently sophisticated to recognize the connections between dialectical systems without advanced education or 40 years of life experience. This suggests that highly complex music will only be appreciated by '*sophisticated listeners*' or connoisseurs (Huron 2008, p. 351, Schönberg 2010).

2. The origin of organizational tension

Tensions 'include all types of situations where alternative expectations and demands are in opposition' (Smith *et al.* 2022, p. 20). These tensions are often experienced as dilemmas that beg us to make either/or choices between oppositional forces when, in fact, they are paradoxical – 'persistent contradiction[s] between interdependent elements' (Schad *et al.* 2016, p. 10). Paradox permeates operations in organizational systems (Smith and Lewis 2011). It is never resolved but is worked with through both differentiation and integration based on a system of both/and thinking. The persistent contradictory and interdependent nature of paradoxes makes management difficult because actors are immersed in a permanent experience of dissonance and subsequent tension, 'defined as stress, anxiety, discomfort, or tightness in making choices and moving forward in organizational situations' (Putnam *et al.* 2016). This becomes particularly challenging since practical paradoxes are encountered in multiple combinations, and each element

involves interdependent values that motivate and excite behavior. As Hampden-Turner (2021), p. 123) highlights, 'All values are paradoxes without exception' because, epistemologically, they are 'statements of difference' (Bateson 1987).

In the 'dynamic equilibrium model of organizing', Smith and Lewis (2011) distinguish tensions in complex systems (Simon 1962) as latent (an implicit but immutable part of system structure) and salient (recognized by actors through paradoxical cognition). Thus, systemically, there may be numerous paradoxical values present, but it is the set that actors experience as relevant (salient) to their current circumstances whose interdependencies will strike a chord. Tensions are feeling states, often resulting from frustration, blockage, uncertainty, and even paralysis that individuals face in dealing with contradictions and paradoxes (Smith and Berg 1987, Vince and Broussine 1996, Lewis 2000, Smith and Lewis 2011).

Yet, individual experience of competing logics has received relatively little attention (Good and Michel 2013), and extant research does not explain how to navigate the complex experience of dissonance when faced with clusters of different paradoxes in an organization consolidated into a set of poles ordered by the intensity of salience (Gaim *et al.* 2021). Slawinski *et al.* (2024) argue that *leveraging the dominant pole*, the most powerful pole in a paradox, can be used as a resource rather than an obstacle. However, a paradox mindset is required to engage in the dynamic navigation to use power to influence and manage paradoxical relationships (Miron-Spektor *et al.* 2018).

The challenge is that '[o]rganizations are designed and managed in order to make management less difficult, but human beings act in ways that make management more difficult' (Argyris 1988, p. 256). As a persistent feature of the organizing system, even when not exerting obvious force (Schad *et al.* 2016), paradoxes become knotted clusters of poles (Sheep *et al.* 2017, Jarzabkowski *et al.* 2021) that need regular unknotting and reknotting to maintain the dynamic equilibrium (Smith and Lewis 2011). These difficulties make leadership a 'process of managing contradictions' dealing with a mess of tensions and contradictions, having to 'recognize its essence as power relations' (Cunha *et al.* 2021).

2.1. The ontology of paradox

Scholars have identified two competing views of paradoxes as either an inherent reality of organizational existence or a social construct produced out of organizational members' discussions (Putnam *et al.* 2016). In the Platonic tradition, inherent paradoxes exist independently of actors' recognition or response (Quinn and Cameron 1988). In contrast, socially constructed paradoxes come into existence through actors' experiences, discourse, practices, and social interactions. In this view, they have no existence prior to being recognized by actors (Hatch and Erhlich 1993, Fairhurst and Grant 2010, Putnam *et al.* 2016). Smith and Lewis (2011) hint at paradoxes being inherent in the sense of being latently present at all times and persistent but socially constructed in the sense that, when they become salient, people place differential value on alternative poles of the paradox. However, recent arguments for a quantum view of paradox (Hahn and Knight 2019) acknowledge the irony that the paradox itself is paradoxical, being simultaneously inherent and socially constructed, showing clear parallels with the ontology of musical systems.

For scholars to get a handle on the dynamic response to multiple organizational paradoxes, a quantum distinction matters. If we overlook 'the difference between perceived tensions (epistemology) and their underlying systems (ontology)', we neglect the system perspective (Schad and Bansal 2018, p. 1503). Then, the complex and nested nature of inherent paradoxes becomes a somewhat hidden and often oversimplified dimension of reality, because they are latent. Nevertheless, when the poles of the paradox become salient to organizational members' circumstances, epistemologically, it is salience that creates specific recognizable tension which prompts dissonance, and the power of the contradictory forces acts on system direction. Therefore, to comprehensively grasp the sources of dissonance, it is necessary to both 'zoom out' to recognize the future power of the system of real, nested, and complexly entangled latent paradoxes to shape and 'zoom in' to grasp what makes them salient enough for organizational members to experience tension as a dominant force shaping their actions with the empirical power to shape the way the system develops (Schad and Bansal 2018, p. 1491).

Therefore, one might propose that the system of well-researched and interacting paradoxes identified by Smith and Lewis (2011) is likely to comprise a set of tensions latently present in all organizational systems but only salient to certain actors at different times. Table 1 compares the inherent and socially constructed tension for both music and paradox.

With the comparison in Table 1 and the argument so far, we now turn to how knowledge about re-envisioning musical theory to emancipate both composers/scholars and listeners from the effect of dissonance conceptually and practically might be transferable to paradox theory. In principle, we need an ontological recognition of the complex, nested, relational structure of sets of paradoxical forces. By that, we assume they can be ordered by their potential to shape organizing and used as a means of desensitizing people against the constraining effects of dissonance, which generally prompts defensive responses, resistance, and avoidance of paradox to mitigate tension.

Table 1. Ontology of inherent and socially constructed tension in music and paradox theory.

	Tension inherent in the system	Socially constructed tension
Musical tension	– Frequency interference is known as beating (Helmholtz 1998) – Consonance and dissonance are really determined by the frequencies of the overtones of the two notes (Maor 2018)	– Cultural condition, 'natural laws are immutable for the transformation of musical practice' (Cazden 1945) – Result of a learning process, 'promising to invent new tonal systems' (Terhardt 1974) – Experience fosters adaptation (Dowling and Harwood 1986), 'It is not a matter of consonance or dissonance, but comprehensiveness' (Schönberg 2010) – Music theory is based on mathematics, where grammar is socially constructed (Bigand *et al.* 1996)
Organizational paradox	– Platonic tradition as being innate in organizational systems (Quinn and Cameron 1988) – Real paradoxes are irrespective of organizational actors' recognition of or response to these paradoxes (Clegg *et al.* 2002, Schad and Bansal 2018).	– Discourse, practices, and social interaction (Putnam *et al.* 2016) – Paradoxes have no status prior to their recognition by actors (Hatch and Erhlich 1993, Putnam *et al.* 2016)

2.2. Approaching organizational paradox

Paradox theory has identified 'rich and varied approaches to plurality, tensions and contradictions' (Smith *et al.* 2017, p. 3) that range from working through tensions to 'blocking the unpleasant experience from memory' (Vince and Broussine 1996, p. 5) when faced with contradictory challenges. Though different names are often adopted and terms and definitions conflated, the treatment of contradictions essentially falls into two main categories—*either-or* and *both-and*—with one emerging dialectical approach of *more-than* (Jarzabkowski *et al.* 2013, Putnam *et al.* 2016, Schad *et al.* 2016).

Categorizing paradoxes in this way divides actors' emotional response to tension in paradoxes largely based on whether the paradox is perceived as a threat or an opportunity. Recently, the three categories have been enhanced by an analytical dimension of four attitudes toward paradoxical challenges – avoidance, balance, solve, and leverage – that add a more nuanced spectrum to the threat or opportunity continuum (Berti *et al.* 2021). Clearly, even a combination of three approaches and four attitudes highlights that the richness of possible responses exceeds the dualistic distinctions between constructive and harmful but still does not provide a 'normatively exhaustive account to of all possible ways to construe and cope with paradoxes' (Berti *et al.* 2021, p. 42).

Building on the work of Lewis (2000), one of the most comprehensive catalogs or responses is compiled by Jarzabkowski and Lê (2017), who distinguish 12 types: *splitting, regression, repression, projection, reaction formation, ambivalence, acceptance, confrontation, transcendence, suppressing, opposing*, and *adjusting*. This illustrates how paradox scholars have theorized even more nuanced and sophisticated explanations of individuals responses to single paradoxes and how they may unfold within organizations (e.g. Jay 2013, Smith 2014, Smith and Besharov 2019) with an increasing focus on studying paradoxes at multiple levels (Ashforth *et al.* 2014, Berti *et al.* 2021), the complexity of possible responses to tension prompted by dissonance will make theoretical advances more difficult.

Just as with music, paradox theory may be at a tipping point regarding the complexity involved in theorizing combinations of paradoxes relative to actors' emotional response to tension caused by dissonance. Hence, it may become more meaningful for theorists to develop ways to emancipate the tension through a set-based approach to multiple poles rather than analytically trying to map the complexity of multiple responses to multiple paradoxes at multiple levels over time.

3. Emancipation of tension – a set-based model

Smith and Lewis (2011) set the foundation for multiple paradoxes simultaneously coexisting in dynamic equilibrium within an organization. Others imply that paradox means organizations are inherently complex, adaptive systems (Stacey 2001, Schad *et al.* 2016) shaped by responses to paradoxical dynamics and tension-based responses. When organizations and their individual members can experience paradoxes across domains as different as strategy, structure, culture, innovation, leadership, or identity, the need to emancipate members from an epistemology in which dissonance is a negative experience

to be avoided seems important. Drawing on Schönberg's idea of emancipation of tension, this section introduces a set-based model designed to contain the poles from multiple paradoxes across multiple levels while freeing the theorist and the manager from the constraints of dissonance.

To explain the model, I have chosen six typical and interconnected paradoxes often present in the context of organizational adaptation to change having a multi-level resonance:

(A) *exploration and exploitation*: The tension between exploring new opportunities and exploiting existing capabilities (Benner and Tushman 2003, Smith and Tushman 2005, Gupta *et al.* 2006, Andriopoulos and Lewis 2009)
(B) *stability and change*: Balancing the need for stability and continuity with the need for adaptability and change (Feldman and Pentland 2003, Farjoun 2010)
(C) *centralization and decentralization*: Managing the tradeoff between centralizing decision-making for efficiency and decentralizing decision-making for responsiveness and empowerment (Deephouse 1999, Osono *et al.* 2008)
(D) *individual autonomy and organizational control*: Navigating the balance between granting employees autonomy and freedom while maintaining necessary control and coordination (Sundaramurthy and Lewis 2003, Wareham *et al.* 2014)
(E) *long-term focus and short-term performance*: Addressing the tension between achieving short-term results and investing in long-term sustainability and growth (Das and Teng 2000, Slawinski and Bansal 2012, 2015)
(F) *cooperation vs. competition*: The tension between working together and competing (Das and Teng 2000, Chung and Beamish 2010, Slawinski *et al.* 2024)

The choice of examples represents a conceptually relevant set of specific but generalizable clashing poles likely to weigh into the salience of the combined paradox set during the phenomenon of change in many contexts, industries, and specific challenges. However, it is essential to note that the choice of these six is simply an example of illustrating the operation of a conceptual model. In practice, due to the infinite variety of latent paradoxes that may arise as a result of value conflicts, it would be necessary to establish the most powerful tensions to include in the set.

Similar to Schönberg's idea of emancipating the dissonance between individual tones by treating them as an ordered set, Figure 6 illustrates the move to free the tension arising between the poles of each of the six distinct paradoxes by treating them as a system or set of 12 possible poles that play into adaptation.

Adopting a systems perspective opens up the possibility for 'a theoretical framework that considers possible interconnections across the identified paradoxical meanings and different levels of analysis (individual, organizational, systems)' (Carmine and De Marchi 2023, p. 139). This is immediately beneficial because the levels of analysis can be horizontal, for individuals and organizations to independently develop responses to paradoxical tension, or vertical, where paradoxical tension is conceptualized and investigated across different levels of analysis (Carmine and De Marchi 2023).

Paradox scholars have conflated the term *salience* (e.g. Smith 2014) with *critical tension* (Jarzabkowski *et al.* 2013) to examine an epistemological foundation for the social existence of paradoxes in organizations and for the individual experience of

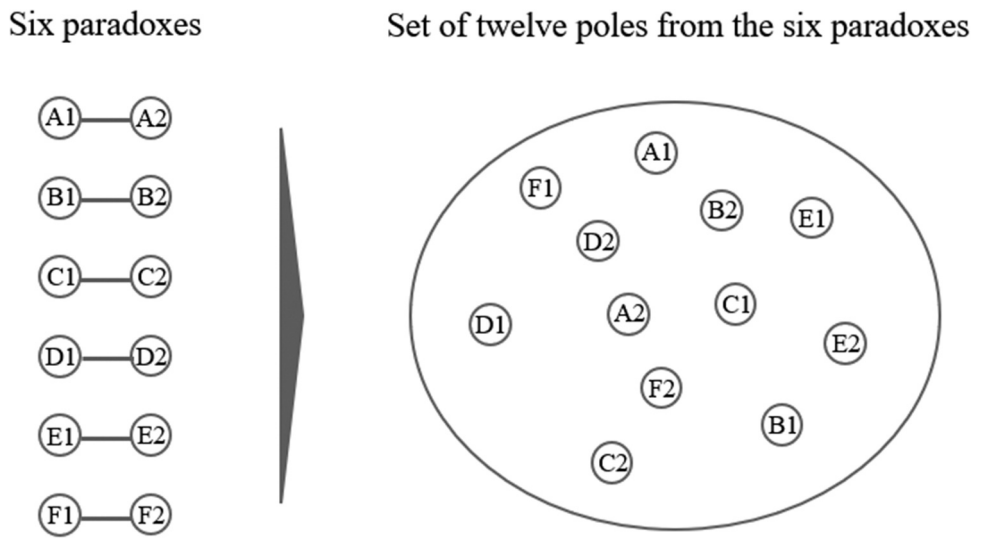

Figure 6. Emancipation of six paradoxes into a set-based model.

paradoxical tension. However, different actors will place different weights on the different poles, where salience to the organization is the combination of weightings across the system depending on their context and ability to support the organizational strategic goals. Accepting paradoxes as persistent contradictions between interdependent elements salient at the organizational level acknowledges that all poles in a system interrelate. Treating them as a set allows for a) the possibility that organizational initial conditions may mean each of the poles creates more or less dissonance and tension in a specific context and b) the assumption that each individual in an organization will experience a different intensity of salience of each pole in their context. Thus, one can potentially consider the relative salience of the set of poles as manifesting in different combinations at different levels, and with different weighting for different actors or potential groups of actors, eliciting the dominant salience for the whole system.

Salience can be studied by 'focusing on language, emotions, or actions' (Jarzabkowski *et al.* 2018, p. 188). This leads us to consider indicators of salience as socially constructed relationally between individuals who form meaningful representations of different poles and relate them, according to their values, to various tensions (Tsoukas and Chia 2002).

Figure 7 shows how an individual may experience the weighting of the dissonant effects from each of the 12 poles from the six exemplar paradoxes, in a particular setting. This immediately emancipates the theorist from the tension between the more classical perspective of having two poles in a paradox. It offers the opportunity to compare the salience of the poles and leverage the dominant pole from multiple paradoxes (Jarzabkowski *et al.* 2018, Slawinski *et al.* 2024).

In music, emancipation of tension does not mean that interdependency is absent or lost; rather, through abiding by the strict ordering of the tones, the listener can work with the patterns of frequencies free from the sense of dissonance between any of the individual elements of the set. This core idea of dodecaphony, that freedom from

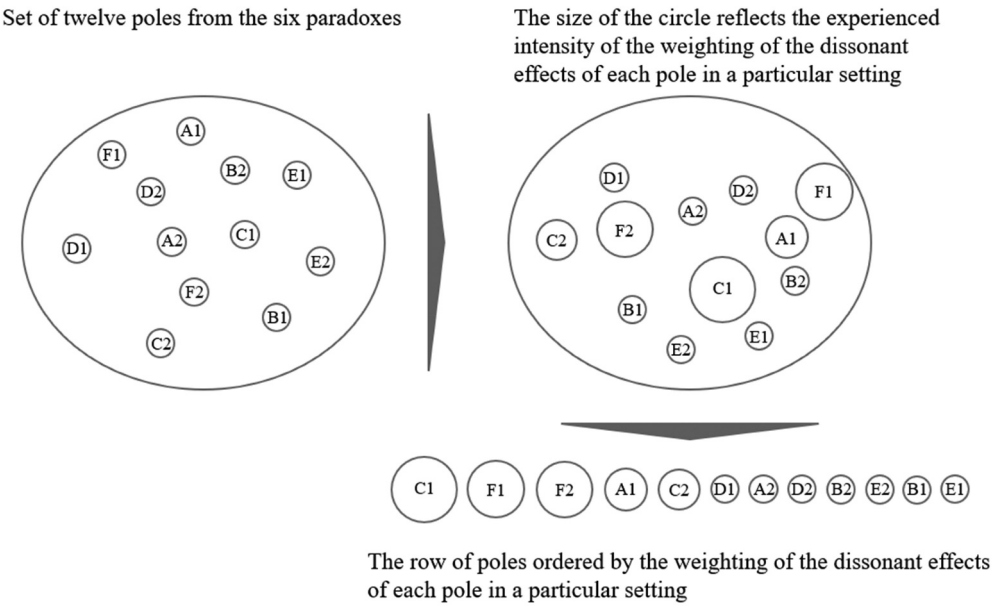

Figure 7. The set of salience poles will change for each individual.

dissonance comes with the recognition of ordering, opens the potential for using various dodecaphonic techniques like permutation, partitioning, change in hierarchical structures, isomorphism, or multidimensionality to alter the listener's experience without disrupting the pattern of the interdependence of the tone row in any given composition (Hvidtfelt Nielsen 2003). Similarly, for paradox theorists, ordering the row by the size of the circle indicates the accumulated individual experience of dissonance within the system, which translates to a capacity to recognize dynamics of dissonance at the actor level. It reflects the plurality of voices but accumulates or cancels out across hierarchical structures while helping identify how responses to the same core paradoxes can shape various organizations in different ways. Additionally, it could also address the limiting assumption in paradox theory that working with it requires the ability to view both poles of the paradox as 'necessary and complementary' (Bednarek *et al.* 2017, p. 77) even though a less sophisticated individual might not even experience or have an emotional response to the tension in the opposing poles of a paradox (Gaim *et al.* 2021). Let us consider how.

In Schönberg's set theory, each dodecaphonic piece of music has its own set of tones in a unique order. Likewise, in organizations, individuals would manifest a set of poles ordered by the dissonant tension they experience, which allows influential individuals' or groups' context to be depicted as a row of poles for several paradoxes, similar to polyphony in music. The idea of polyphony is not new in organizational studies. Kornberger *et al.* (2006) applied this notion of organizational research to theorize the connection between change, power, and language by analyzing the multiplicity of voices (Bakhtin 2013), establishing that '[o]rganizationally, polyphony is always present, even though it may be silenced by a dominant discourse' (Kornberger *et al.* 2006, p. 4). The row of poles can be compared with the vertical homophonic structure of music depicted in Figure 2, where

a specific set of tones sounds simultaneously underneath a melody. Given the multi-level structure and interdependence of tones in the underlying chords, changing one tone affects the tension and might also ruin the melody. Similarly, at an organizational level, changing the emphasis on one pole might affect the tension experienced by the individual. Horizontal polyphony in music is characterized by multiple voices simultaneously, as shown in Figure 2 Applying this idea to paradox theory, several sets of poles from multiple paradoxes from multiple individuals could be overlayed to represent the polyphonic clashes existing simultaneously across multiple levels in an organization.

Figure 8 illustrates how, by emancipating individuals from predetermined tensions between dual poles in six separate paradoxes and working with the ordering of their set of tensions from dissonance, the theorist gains an opportunity to consolidate multiple horizontal pole rows based on the intensity of salience experienced across multiple levels in the organization. The different individuals have their own set of poles and will experience tensions differently depending on their position in the organization. That is similar to the technique of isomorphism in dodecaphonic music, which is a critical concept for ensuring the interconnectedness and structural integrity of the 12-tone row across its various forms and transformations. Isomorphism ensures that various transformations of the row (e.g. inversion, retrograde, and retrograde inversion) maintain a consistent relationship with the original row (Hvidtfelt Nielsen 2003).

By comparing Figures 7 and 8, we see an example of an individual experiencing salient poles from several paradoxes to manage daily work with the main focus on short-term performance and stability (Figure 7). Contrast this with top management, who consider new technology more desirable, so that the poles of change and exploration with a long-term focus are given more priority for reaching strategic goals. Figure 8 shows that each individual works in different contexts 'facing competing yet interrelated demands'. This requires the organization to work through the consolidated set of poles to create virtuous

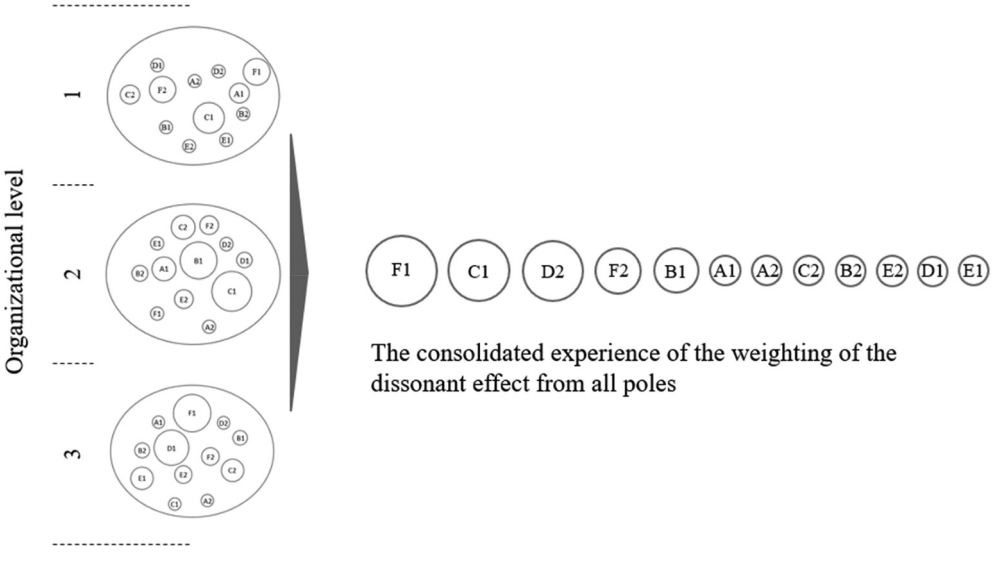

Figure 8. The multi-voice set of poles ordered by the weighting of the dissonant effect on a consolidated organizational level.

circles rather than vicious cycles (Pradies *et al.* 2020, p. 1), which will surface 'conflicting feelings, practices, and perspectives in search of more encompassing understandings' of paradoxical tensions to become productive (Lewis and Dehler 2000, p. 710). This set-based approach encourages the paradox scholar and the manager to not view paradoxes in isolation but as an interactive complex of incompatible demands. They should weigh up these demands to identify the most creatively 'tuneful' combination of conflicting priorities that take into consideration a richer variety of dimensions and hence may, from a complexity perspective, be more resilient.

4. Discussion

Paradoxes need the *right* cognitive templates to be seen (Schad and Bansal 2018), with scholars arguing that 'seeking to pull these forces apart remains futile, as they are locked in a dynamic, persistent relationship' (Lewis and Smith 2022, p. 531). Musical theory suggests that this lock involves several polar tensions in the sets of forces rather than individual paradoxes. While the underlying potential tensions remain distinct, they interlock when activated in a specific organizational context. Thus, leveraging insights from musical theory can illuminate the practical, situated, and salient interlocking of these multiple tensions. The relationships between these tensions may vary across different levels, depending on the intensity of tension experienced by the manager or listener, even though the poles persist as latent elements in the organizational system.

Musical theorists acknowledge that multi-level, multi-tension, and multi-voice structures are irrevocably complex, and, initially, the presentation of layered dissonance can elicit a higher level of tension and dissonance. The development of new set-based mechanisms allowed them to overcome the denial or obstruction these structures produced for connoisseurs of music (Hutchinson and Knopoff 1978). Hence, although applying an emancipating response to tension in paradox theory opens the possibility of ordering the poles of multiple paradoxes from multiple levels, as previously argued, arousing individuals to greater sophistication as complexity increases requires progressive conditioning to that complexity through experience (Burkholder *et al.* 2019). It is likely impossible to eliminate cognitive dissonance as a real and instinctive response (Festinger and Carlsmith 1959).

However, comparing multiple pole rows of organizationally salient paradoxes understood as accumulations of individual dissonant experiences at different levels could provide a mechanism to help overcome the effects of individual experienced dissonance, by recognizing epistemological differences in the meaning of the poles for various actors in the same context, which would raise awareness of the many potential priorities in sets of alternatives (Raisch *et al.* 2018). Making explicit and comparing the multi-level and multi-voice patterns of salient forces underlying paradox can emancipate people from the tension caused by their own personal dissonance. For example, the unrecognized implications of multiple incompatible perspectives inspire both pockets of resistance to change when contradictory poles at multiple levels clash and also allow dominant logic to prevail (Prahalad and Bettis 1986, Prahalad 2004) when people are discomforted by the clash between something new but ill-fitting with the current status quo. Thus, dissonance tends to overemphasize the stabilizing forces of the familiar and constrain innovation, learning, and change.

Under the right conditions, working through the multiple dissonant voices together as a consolidated set of poles could help people work with them as a complex. Consolidating rows of poles from the complex structure of multi-level, multi-tension, and multi-voice tension could challenge an individual's own cognitive limitations without threat and initiate an organizational dialogue around the different degrees of salience until organizational actors become more *sophisticated listeners*. Thus, though a paradox mindset is not an inborn skill, it may be possible to learn through comparisons of experiences and the dialectical ordering of priorities and to develop organizational and individual capacity to appreciate the complex interdependencies between multiple poles at multiple levels and become a *paradox connoisseur* (Kegan 1998, Ericsson and Pool 2016).

A paradox connoisseur needs to master a certain level of cognitive practices to benefit from the productive potential of dissonant voices. Like the sophisticated listener tends to be attracted to more complexity to avoid boredom, a paradox connoisseur may be attracted by the complexity of working through multi-level, multi-tension, and multi-voice paradoxes. To be of practical use, however, this cannot remain an art and privilege for a very few dedicated individuals who have invested decades in learning and practicing, leaving less sophisticated listeners to work only at the level of complexity they comprehend. To benefit from the productive potential or paradox, the experience must be extended to reach a higher, more abstract level of emancipation from dissonance (Huron 2008).

A set-based approach offers an opportunity to unpack the poles from singularly experienced paradoxes and work with the patterns created by the intensity of salience both horizontally and vertically. For example, a less *sophisticated* individual might only experience dissonance because one pole creates a paradox in their context. In contrast, a connoisseur will know from their experience that the opposing pole exists and will be present in the systems but is just ordered differently in the context. Nevertheless, it will be relevant for others. Moreover, the dominant tension changes over time, and it will be necessary to zoom out to see the new relations and zoom in to uncover the dominant tension (Schad and Bansal 2018). Consequently, the idea of connoisseur emancipation of dissonance is useful for scholars and managers but not necessarily applicable to individuals who lack sufficient agency to intervene in relation to paradox.

A 'paradoxical mindset' is defined as 'the extent to which individuals feel comfortable with and energized by tensions' (Miron-Spektor *et al.* 2018, p. 38), which is closely related to the *sophisticated listener* definition (Huron 2008). Developing a paradox mindset requires individuals and groups to work 'through paradox by exploring conflicting feelings, practices, and perspectives in search of more encompassing understanding' (Lewis and Dehler 2000, p. 710).

Working through this can be achieved by accommodating opposite poles when 'individuals interweave constraints with their own experiences and knowledgeably act to facilitate discovery' (Milosevic *et al.* 2018, p. 1191) or at an organizational level when collective practices are developed to combine conflicting but complementary logics (Smets *et al.* 2015). Recently, scholars have focused on how paradoxes are made more salient within collective decision-making (Huq *et al.* 2017) or a more relational understanding of navigating paradoxes in a collective context (Pamphile 2022).

Freedom from dissonance could enable a paradox connoisseur to avoid characterizing the value of one pole as a hindrance to the other. Power is used to engage dynamic

navigation to oscillate and intensify patterns of multiple poles by leveraging the dominant pole (Slawinski *et al.* 2024) without seeing the less dominant pole as a hindrance. It is a 'learning journey' to develop such a paradox mindset (Jay 2013, p. 150), requiring 'deliberative practices to work through paradox collectively' (Griffin *et al.* 2022, p. 625). Potentially, a set-based approach to analyzing differences in tonal discontinuities at multiple levels offers a basis for collective dialogue regarding the relationship between individual-level dissonance in response to salient local tensions and the manifestation of those tensions at the organizational level. Nevertheless, until recently, paradox research has only dealt with a limited number of paradoxes simultaneously (Jarzabkowski *et al.* 2021), though it acknowledges the need to deal with multiple paradoxes. Theorists need a way to accelerate that development. Schonberg's experience of music theory offers some hope for a different form of analysis.

A set-based approach opens a wide range of questions and avenues for further research. For example, what is an appropriate number of poles in a set? Can we learn more about multi-level, multi-tension, and multi-voice tension from other interdisciplinary research? How do we navigate in an organization with paradox connoisseurs and individuals who are not that sophisticated (yet)? What does deliberate practice become a paradox connoisseur looks like? The questions will be many, but recent paradox research has been calling for new interdisciplinary methods to understand the complexity and multiplicity of paradoxes, and this article is an attempt to adopt an interdisciplinary systemic perspective on the topic.

5. Conclusion

Emancipating tension through a set-based approach to working with dissonance is an attempt to offer a different way to look at the multi-voice response to paradoxical tension, drawing on more than six centuries of tradition for treating dissonances in music. The set-based approach adds to the topologies defined by Berti *et al.* (2021), increasing complexity to the more-than strategy as a multiplicity of dimensions of dissonances. It leverages the response to even a higher level of paradox as an opportunity, which might add to the argument for paradox as a paradigm (Lewis and Smith 2022).

Schönberg's dodecaphony marked a new chapter in music history and represented the start of a new era of atonal composition, which increased the complexity of composing classical music. This article proposes a model for the emancipation of tension that aims to be innovative and impactful without neglecting the real complexity of organizational life. Like the development of music, it might inspire counter-movements that call for simplification. For example, a new generation of French composers is now working towards a sparser and terser style as a counter-pole to the complexity of both the late Romantic period and Schönberg's highly complex music (Burkholder *et al.* 2019). Hence, emancipation of paradoxes might be a preference for some and not for others, just as large parts of the human population, even some that may be considered musical connoisseurs, choose not to listen to dodecaphonic music, preferring commercial hits with simple harmonies.

In summary, music theory could be extrapolated as a unique approach to overcome the limits of individual paradoxes and treat them as a set of unique poles that have different orders of salience at different levels of organization but will pattern horizontally and vertically to produce a degree of distinct and unique organizational

salience. The long tradition of music theory can be a way of introducing the power to emancipate individuals from defensive responses to dissonance created by organizational paradox. Since the paradoxes are connected and mutually interdependent as a system (McKenzie 1996), neglecting their interdependency allows them to compound into vicious circles, but when apprehended as forces shaping the organizational system, it becomes possible to produce virtuous cycles of change (Voronov and Yorks 2015, Tsoukas and Cunha 2017). For theorists, emancipation of dissonance may expand our understanding of the underlying mechanisms through which epistemological salience created different tensions at different levels of analysis; for managers, as the listeners, it may offer a way to develop a paradox mindset, which can work more effectively with the multiplicity of paradoxes in organizations. Both facilitate leverage of the creative power of paradox in organizing to change the status quo.

Nevertheless, it is crucial for the proposed model in this article that the tension and relation between the poles in the set still exist in reality and never dissipate. However, they will only be comprehensively perceived by a *sophisticated listener* through experience and adaptation. The development of the paradox connoisseur's experience will be a necessity for the new system to evolve and further develop because 'we stand only at the beginning. We must go ahead!' (Schönberg 1978, p. 314).

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