

Vincent d'Indy's Concept of "Significant Keys" Through the Psychology of Perception of the Fin de Siècle Era: Constructing a "Complex" Sign in Music

Elena Rovenko^{1,2}

¹*Conservatoire Serge Rachmaninoff de Paris, France*

²*Faculté des arts, Département de musique, Université de Strasbourg, France*

¹elena.rovenko@rachmaninoff.fr, ²rovenko@unistra.fr

Abstract

This article examines the concept of "significant keys" (*les tonalités significatives*) proposed by Vincent d'Indy, drawing on the ideas of his period regarding musical acoustics, the psychology of perception, and aesthetics, particularly the theories of Arthur von Oettingen, Hugo Riemann, and Albert Lavignac, who was d'Indy's teacher. The phenomenon of a "significant key" acts as a complex sign in which the signifier is the sound of a particular tonality, and the signified is a layer of extra-musical meaning, whereby the connotations are determined by the composer at the pre-compositional stage of the work. This layer, as can be deduced from an analysis of d'Indy's texts, consists of two elements: feelings and ideas, which must be "decoded" by the audience. In fact, by assigning a special characteristic to a particular key, d'Indy performs a metonymic transfer (the extra-musical layer of meanings is considered to be the immanent meaning of the chosen key). The aesthetic basis for such characteristics concerns the long-standing idea of the binary opposition of major and minor, realized primarily in the field of sensory reactions to the sound of the two modes. The acoustic principle of this idea is the concept of the complete dualism of major and minor (including "upper" and "lower" resonance and functional inversion) (d'Indy, 1912, pp. 92–93; Lavignac, 1938; Riemann, 1893).

Keywords: Vincent d'Indy, *les tonalités significatives*, Richard Wagner, musical semantics, major-minor dualism, psychology, music perception

Introduction

In the development of French musical theory and practice during the *fin de siècle*, Vincent d'Indy's role is particularly interesting. His merits are diverse: his participation in the founding and later work of *La Société nationale de musique* and the *Schola Cantorum*, his provocative socio-political and cultural positions, his advocacy of Wagnerism as a method for developing real French art, and the implementation of a new teaching style that resembled the medieval

"guild" way of communicating between a master and his students, as opposed to what one could observe at the *Conservatoire national de musique de Paris*. All these aspects of d'Indy's work mark him as an extraordinary person. His lectures on contemporary music and theoretical texts (such as books on Beethoven and Franck, articles, and *Le Cours de composition musicale*) attest to d'Indy's brilliant and extraordinary thinking. On the one hand, the composer always sought to stay abreast of contemporary developments and respond to the goals of that period (such as the development and preservation of *l'art latin*), whilst, on the other hand, he associated them heavily with Tradition¹.

One aspect of the latter was the concept of harmony, which was, generally speaking, highly appreciated by his contemporaries, for example, Camille Saint-Saëns (1922, pp. 19–20), and, in particular, the concept of tonality—in terms of its structure, application, and desired effect on the listener. According to d'Indy, tonality is the only acoustically grounded (i.e. natural) way to organize polyphonic music (1912, pp. 92–93). This means that aesthetic perception can be regulated by determining, in advance, those characteristics of tonality that can cause a specific feeling or generate a circle of fairly stable image associations in the listeners' mind.

The semantic mechanisms that d'Indy tacitly implies become the subject of our attention. They are consistent with the ideas of his era concerning acoustics, the principles of the perception of harmonic elements and their aesthetic properties. This aspect of d'Indy's theoretical legacy has not yet been the subject of special study. However, the very fact of the composer's reliance on the tradition

¹ Which has always been a guiding principle for him; the composer wrote this word, like many others significant to him, with a capital letter. See for example d'Indy, 1909, p. 16.

of key semantics was noted by Maho A. Ishiguro (2010, pp. 114–116)².

It is apparent that, as a result of reliance on this established tradition, tonality emerges as the principal harmonic element endowed with extra-musical meaning and functioning as a *signifier*, in modern terminology. To formalize this role, d'Indy introduces the concept of *significant keys* (*les tonalités significatives*), which is the focus of our analysis³. The essence of this concept and the dramaturgical function of the corresponding phenomenon are explicitly articulated by d'Indy himself in his essay on Wagner (1930, pp. 50–51). Its constructive and semantic roles can be further inferred from his scattered remarks on the structure of specific musical works (d'Indy, 1950, pp. 99, 111, 135, 140, 146–152, 159–160, 171–185, 202, 216–217, 286–308; 1906, p. 138).

However, the composer does not present a systematic exposition of the concept of *significant keys* to the reader. The novelty of our study lies in its attempt, for the first time, to reconstruct (1) the genesis of the composer's ideas concerning *significant keys* and (2) the original algorithm underlying the formation of their semantic content. This dual focus both highlights the distinctiveness of the composer's artistic thought and reflects the integration of existing psychoacoustic theories of tonality (e.g., Riemann, Lavignac) alongside perceptual and synesthetic experiences (César Franck). The primary sources for this research include: (1) the body of d'Indy's own writings in which the concept of *significant tonalities* is articulated; and (2) contextual works by his mentors and contemporaries, which influenced his understanding of the semantic dimensions of tonality.

² Furthermore, the problems of sense-making in d'Indy's later opuses were mentioned, for example, by Jane Fulcher (1990, pp. 295–296) and Esteban Buch (2006, pp. 31–35).

³ In French theoretical discourse, the term *tonalité* refers both to the system of pitch organisation and to the specific pitch level or key center. D'Indy primarily employs the term *tonalités significatives* in the latter sense, which informs our choice of translation as “significant keys”. Nevertheless, in certain analytical contexts, particularly when examining specific compositions, he also considers the internal structure of the tonality and its development in duration. In this context, the term *tonality* may be regarded as more appropriate.

The concept of *les tonalités significatives*

Adhering to the “music-as-language” paradigm⁴, Vincent d'Indy can be said to have been looking for an opportunity to determine which type of extra-musical sense can be conveyed through musical means, and which of them can best serve as a *signifier*. As Mark Evan Bonds points out, “the metaphor of language suggests at least some degree of semantic content, and the task of deciphering music's meaning would remain a challenge throughout the eighteenth century and beyond” (2014, p. 68). D'Indy contributed significantly to the solution of this problem.

Two spheres concerning the formation of extra-musical components of artistic meaning and two fields of semantic analysis were proposed by the composer in texts such as *Le cours de composition musicale*.

The first concerns *l'art du geste* (d'Indy, 1933, pp. 7–8), which is *la musique pure*, including genres such as symphonic and chamber music which have neither text nor programme. Here, musical means appear to serve as *signifiers*. In this context, music—understood as a form of messaging—can convey only one type of extra-musical sense: one that is not tied to language and cannot be fully articulated through verbal means. This pertains primarily to various *sorts of feelings*⁵. “[...] music [...] evokes or expresses feelings of our soul” (d'Indy, 1909, pp. 384–385). In fact, d'Indy made this declaration on the basis of a musical tradition rooted in the Renaissance⁶.

⁴ See d'Indy, 1912, pp. 12, 29; 1933, pp. 6, 48–49. Concerning “the language of sounds” (*le langage des sons*), “the language of words” (*le langage des mots*), and “musical discourse” (*le discours musical*) see d'Indy, 1912, pp. 36, 47, 78. The “music-as-language” paradigm was still relevant for French musicians of the *fin de siècle* era like Paul Dukas and Ernest Chausson, and was in contradiction with the second, Eduard Hanslick's (1854), doctrine of the intrinsic value of music as *Tönend bewegte Formen*. On possible translations such as “sounding forms in motion” and others see Payzant, 1981, p. 44.

⁵ Besides images, which are produced by the listener's own consciousness through associations (cross-modal correspondences, representations etc.).

⁶ Such correlations between musical material and its extramusical sense, as invented by composers in Renaissance treatises, can be seen, for example, in Carlo Valgulio's *De Musica*, 1507, and Nicola Vicentino's *L'antica musica ridotta alla Moderna prattica*, 1555 (Bonds, 2014, pp. 48–49). D'Indy emphasizes the fact that it was during the Renaissance that “the individualistic mindset” (*l'état*

The second sphere of artistic meaning is produced by *l'art (la musique) de la parole*, according to d'Indy's classification, namely, those genres besides opera: cantata, oratorio, as well as "transitional" genres, such as overture, fantasy and symphonic poem, taking into account the presence of an extramusical semantic layer in such genres where verbal components have encoded a meaning. In this case, since the word reflects the work of the intellect, a layer of extramusical meaning contains not only feelings (*les sentiments*), but also ideas. They can be transmitted through musical means as signifiers, generated by a poetic text, a programme in a symphonic work, or a libretto and stage remarks in an opera.

According to the composer, the last genre (originating from *La camerata fiorentina*) can be considered as the highest implementation of this dual extramusical sense (*le sentiment* and *l'idée*) through music⁷.

Drawing on d'Indy's reflections, one may infer that, among the musical means, a mode emerges as the most suitable vehicle for conveying this dual musical meaning. As a phenomenon, the mode possesses a long-standing historical association

d'esprit individualiste) was developed (d'Indy, 1933, pp. 74–75; see also 1912, p. 218); hence it is logical to deduce the value of individual experiences and their correlation to music. D'Indy further coordinates the rise of individualism with the advent of solo compositions, citing *Madrigal dramatique* as an example (1933, p. 75).

Another source of the composer's opinions (not musical, but philosophical) is the definition of art as given by Count Léo Tolstoy, who was highly revered in France during the era in question. D'Indy cites this definition (1912, pp. 9–10): "Art is a human activity, consisting in this, that one man consciously, by means of certain external signs, hands on to others feelings he has lived through, and that other people are infected by these feelings, and also experience them" (Tolstoy, 1904, p. 50).

⁷ This judgment can be derived from d'Indy's differing analysis of other composers' music (e.g. 1930, pp. 28, 31, 41, 43, 48, 50–51, 77, 79). Characterizing the works of Richard Wagner, Guy Ropartz and Claude Debussy, d'Indy builds a link between "the order of feeling" (*l'ordre du sentiment*), a specific idea and its embodiment in music. For example, in *Die Meistersinger von Nürnberg*, the "idea of youth" is associated with the emotion of "ardor" (1930, p. 28) and is expressed in various rhythmic and melodic modifications of the original leitmotif, including a whimsical shift of accents, the inclusion of pauses and chromaticism (1930, pp. 29–30).

with extramusical significance—beginning with the ancient Greek conception of the ethos of the modes. However, since the composer is concerned not with Greek tragedy but with opera as a form of modern musical drama, his focus shifts to ideas pertaining to the extra-musical correlates of harmonic systems that gained prominence in the modern era (*Histoire moderne*), following the emergence of opera as a distinct phenomenon between 1598 and 1600. Accordingly, he concentrates on the type of harmonic organisation that accompanied the development of this genre—namely, tonality.

Moreover, considering Wagner's musical drama as the culmination of this development, and the operas of Gluck and Weber as its preparatory stage, d'Indy (1950, p. 64) investigates the problem of the semantics of keys (as the concrete implementation of a tonal system) in the aspect of the semantic function that they fulfil in the works of these composers. This is a very important clarification: d'Indy relies not so much on these authors' statements, but on his own opinions about their concepts and their scores, basing his thoughts on contemporary scientific ideas.

Ultimately, the composer was convinced of the need to verify aesthetic judgments. When it comes to the semantics of keys, it is a reflection of ideas concerning musical semantics, resulting from theories of the psychology of perception put forward by the composer's contemporaries (Hugo Riemann and Arthur von Oettingen, cited by d'Indy, and Albert Lavignac, the composer's harmony teacher⁸).

Considering tonality to be the "central point" of an algorithm of semiosis, d'Indy introduces the term *les tonalités significatives* ("significant keys") and is sure that this phenomenon was invented by Richard Wagner (d'Indy, 1930, pp. 50–51). A key acquires the status of "significant" when its repetition is observed in connection with the same extramusical meanings and affects the nodal moments of the drama. D'Indy identifies the first use of this phenomenon of tonality in Gluck's *Alceste* (1776) and *Armide* (1777), then in Weber's *Freischütz* (1821) (1950, p. 135), and after that in Wagner's later-period dramas (*Tristan und Isolde*, Table 1; *Die Meistersinger*, the tetralogy, *Parsifal*). As for Wagner, d'Indy even created schemes of "significant keys" (1950, pp. 151–152, 162, 174–175, 286–287),

⁸ "Lavignac touches on various topics relating to the idea of key characteristics: acoustics, musical perception, tonality, instruments, counterpoint, harmony, esthetics and the history of music" (Ishiguro, 2010, p. 86).

thereby noting their special abundance and striving to embody the same logic in his own compositions, which he himself defined as “Wagnerian” (*Le chant de la cloche, Fervaal, L’Étranger, La légende de Saint Christophe*; see 1930, p. 66; 1950, pp. 202, 210, 216–217).

Table 1. Tonal construction of *Tristan und Isolde* according to d’Indy (italics were set by the composer⁹)

UT et la, tons de l’amour par enchantement, appliqués plus spécialement au philtre d’amour: Dans la grande scène du second acte, l’un de ces deux tons est généralement affecté plutôt à Tristan, et l’autre à Isolde	C major and A minor, the keys of <i>love</i> by enchantment, applied more particularly to the love <i>potion</i> : In the great scene of the second act, one of these two keys is generally assigned rather to Tristan, and the other to Isolde
LA : <i>passion</i>	A major: <i>passion</i>
SI : <i>passion exaspérée</i> . Ce ton sera celui de la fin de l’œuvre ; il y exprimera la plénitude de l’amour	B major: <i>exasperated passion</i> . This key will be that of the end of the work; it will express the fullness of love
LA bémol : <i>repos, calme</i>	A-flat major: <i>repose, calm</i>
fa : prostration, désespoir et une général <i>dépression</i>	F minor: prostration, despair, and a general <i>depression</i>
ut : presque uniquement réservé à la <i>fatalité</i> (quelquefois angoisse ou colère)	C minor: almost exclusively reserved for <i>fatality</i> (sometimes anguish or anger)
SI bémol : héroïsme, chasse (au 2 ^e acte)	B-flat major: heroism, hunting (2 nd act)
ré : ton triste, spécial au roi Marke	D minor: sorrowful key, specific to King Mark
FA : <i>fidélité</i> , obéissance (Kurwenal), et aussi urbanité, courtoisie	F major: <i>fidelity</i> , obedience (Kurwenal), and also urbanity, courtesies
RÉ bémol : illusion volontaire (accessoire)	D-flat major: voluntary illusion (accessory)

The extramusical meanings that d’Indy associates with each significant key can be categorized based on their method of formation and the type of response they elicit from the listener.

⁹ The composer’s use of italics reveals the logical emphases he intends, highlighting the concepts he deems most significant and the tonal centers he considers fundamental to the work’s dramaturgy.

1. a) The phenomenon’s essence or its image constitutes the genuine signified: for example, in Gluck’s *Alceste*, “distant key” (*un ton éloigné*), “B major [is reserved] to characterize the oracle, who logically had to be very different from everyone else” (d’Indy, 1950, p. 64). Another example can be found in d’Indy’s *La légende de Saint Christophe*: E major is connected with the specific image of mountains and, later, the heavenly homeland (*la patrie céleste*; 1950, p. 216).

b) Generalizing categories and characteristics (such as holiness, obedience, treachery) also appear as correlates of tonality. They are shaped by the specific staging, the text, and plot developments, and they require *intellectual engagement* from the listener.

2. a) Feelings (sadness, joy, hatred, etc.) as well as nuanced emotional ideas (like passion, fatality, heroism, calm) and b) synesthetically elaborated characteristics (radiant, cold, freshness, etc.) emerge as correlates of the keys. These are designed primarily in relation to the listener’s instantaneous reaction and their direct psycho-emotional perception of the sound of the tonalities employed. This primary, instantaneous perception is converted into a lasting feeling. It is developed according to a scheme proposed by d’Indy in relation to the very essence of each art form (not only music): *l’impression — le sentiment — l’émotion — la passion* (instant perception — feeling — emotion — passion, d’Indy, 1912, p. 12). Since, in this case, the composer talks about an algorithm inherent to the aesthetic perception of any person, he cannot disregard the individuality inherent in aesthetic and perceptual experience. Consequently, each key is endowed with multiple layers of meaning, contingent upon the ideological framework of a given work—as interpreted by d’Indy himself, whose analytical readings of other composers’ works are filtered through his own perceptual lens.

At the same time, d’Indy’s development of this perceptual algorithm reflects a conscious engagement with the continuity of historical musical thought. He elaborates on ideas about the impact of keys which had gradually been developed throughout the Baroque era and were reinterpreted in the 19th century. It is worth pointing out here that this concept is contradictory by nature, and its ulterior contradictions turn out to be partly characteristic of the turn of the 19th–20th centuries. The impact of various temperament systems and timbral representations on tonal colour, in particular, could warrant detailed examination; however, d’Indy refrains from addressing this aspect.

Harmonic dualism as a source of the semantics of keys

As a staunch follower of Riemann, d'Indy relies on the concept of the dualism of major and minor in the truest sense of the word¹⁰. He considers minor to be a consequence of “the resonance of the lower tones” (*la résonnance harmonique inférieure*; d'Indy, 1912, pp. 96, 98) and builds a sequence of functions in opposition to the major key. Even Riemann did not go that far in his theory and did not propose a total functional inversion¹¹: in A minor, the D minor triad is interpreted as dominant, and E minor as subdominant (d'Indy, 1912, pp. 110–111). However, d'Indy, like Riemann, interprets minor triads as structurally inverted formations, conceptually derived from upper to lower, which leads to confusion in his reasoning when he analyses a piece of actual music, rather than a theoretical construction¹².

D'Indy was convinced of the acoustic authenticity of the complete inversion between major and minor¹³. At the same time, judging by the epithets found in his texts, the composer did not lose sight of the reality and regularity of spatial, kinaesthetic, temperature-related, colour-related, cross-modal correspondences, amongst others. From this foundation, the composer derived a complete semantic opposition; 1) between major and minor¹⁴; 2) between upward and downward

motion within “the circle of fifths” (*l'ordre cyclique des quintes*, 1912, p. 130). This binary opposition becomes central to the system of key relationships he constructs, which, in turn, governs principles of modulation (harmonic development) and directly influences the expressive character of music.

Thus, moving along the chain of ascending fifths (*la quinte aiguë* as a measure, d'Indy, 1912, p. 130) results in keys with an increasing number of sharps. This progression creates “an expressive effect that can be compared to an ascent toward light, symbolizing a sense of luminous expansion” (“*l'effet expressif est comparable à la montée vers la lumière, à l'expansion lumineuse*”, d'Indy, 1912, p. 130). Movement towards the flats, on the contrary, generates an effect that “could be compared with a fall into darkness, with a concentration of obscurity” (“*est comparable à la chute vers les ténèbres, à la concentration dans l'obscurité*”, d'Indy, 1912, p. 130). By adding harmonic dualism to these basic attitudes, d'Indy proposes a general law: movement towards the dominant produces enlightenment in major (as it goes up in fifths) and “darkening” in minor (as it goes down in fifths; note that the D minor triad in A minor is interpreted as dominant), whereas motion toward the subdominant produces the reverse effect.

From a theoretical point of view, d'Indy may well have relied on Riemann's ideas. The German musicologist proposes this generalization: “Each key, through its type of derivation from the fundamental scale (that is, through the fifth and third chains in ascent and descent), has a particular character. To define it briefly, all steps upward make the character brighter and more radiant, while all steps downward make it darker and cloudier. Since major — as opposed to minor — already has a bright and radiant effect, the brightest keys are the major keys with many sharps and the darkest are the minor keys with many flats” (in Ishiguro, 2010, p. 62).

¹⁰ It should be noted that the real “inverse minor” is the Phrygian mode, since it is the descending scale that is the exact reversal of the major ascending scale. See d'Indy's scales (1912, p. 102). In French tradition, it was Jean Adam Serre who also addressed the problem of the origins of the minor and its “mirror” qualities in relation to the true major in the 18th century (see Sekimoto, 2007, pp. 7–13). However, in the real Phrygian mode there are no functions of dominant and subdominant, as in tonality, because this mode is melodic in its origin; the functional system is formed on other principles.

¹¹ In addition, d'Indy mentions Arthur von Oettingen's theory of two resonances (1912, pp. 140–141).

¹² See, for example, his own analysis of the main theme of the third part of his Second Symphony (d'Indy, 1933, p. 176).

¹³ Concerning Serre's solution of this problem, which anticipates d'Indy's ideas, see Sekimoto, 2007, pp. 13–18.

¹⁴ This can be viewed as a reinterpretation of Baroque ideas, for example in Quantz: “Major is generally used to express the gay, the bold, the serious, and the sublime; minor for caressing, sadness, and tenderness” (cited in

Bodky, 1960, p. 229). An additional source of ideas about the semantics of keys could be related to the works of Johannes Mattheson (his name is mentioned in d'Indy's treatises, but in the context of polyphonic techniques; see 1909, pp. 30–31). “In the midst of all this theorizing about the relationship of words and music, thought and emotion, the composer and critic Johann Mattheson (1681–1764) addressed the expressive capacities of instrumental music on a more technical level, proposing that music was a language with its own syntax and semantics” (Bonds, 2014, p. 66).

From a practical point of view, d'Indy's light-dark associations were quite possibly influenced by the synesthetic experiences of his teacher César Franck, for whom, according to d'Indy's memoirs, B major represented an "absolutely luminous" key (*absolument lumineuse*), while F sharp major corresponded to "the heavenly light" (*la lumière paradisiaque*) and "the sparkling clarity" (*la scintillante clarté*; 1906, pp. 100, 198, 204). In *Rédemption*, A minor is interpreted as a "dark tint" (*teinte sombre*), and in *Les Béatitudes*, C minor is connected with Satan (*le prince des ténèbres*; d'Indy, 1906, pp. 125, 207). These associations align with d'Indy's idea concerning the "clouding" of tonal semantics when moving down through the circle of fifths.

Corresponding characteristics of these keys (B major, F sharp major) are observed, for example, in *L'Étranger*, *Fervaal*, and *La légende de Saint Christophe*: in the first case, B major appears as the key of glory, whereas, in the second, as the key of heroism and in the last—as a characteristic of the true development of spirit. F sharp major is reserved for holy love (d'Indy, 1950, pp. 202, 210, 216–217).

D'Indy even entitles the keys as "musical tints" (*teintes musicales*, 1906, p. 124). By causing stable cross-modal correspondences associated with the parameters of lightness and brightness, the keys are thereby interpreted as synesthetic triggers. This method of arousing listeners' reactions would later be in demand by Olivier Messiaen, who develops his modes of limited transposition not only as harmonic, but also as colouristic structures (Wai Ling, 2010, p. 21). Such ideas are rooted not solely in the synesthesia of composers, but also in the judgments regarding the different properties of colours and their effect on the human psyche.

Thus, d'Indy's dualistic concept partly resonates with the innovative colour theories developed throughout the second half of the 19th century, which were based on the idea of a chromatic circle resembling a tonal circle. One can cite the theories of Eugène Chevreul (Gage, 1990, p. 530) and Charles Blanc. For Blanc, the extreme points on the chromatic circle are complementary colours, which in total yield white (the additive principle, "*Loi des couleurs complémentaires*" (1876, p. 562)) and which are as far apart from each other as possible. They contrast with each other, symbolizing struggling opposites — like sharp major and flat minor. Blanc himself said that colour in painting is the same as harmony in music (1876, pp. 22–23). Van Gogh's paintings served as a brilliant embodiment of Blanc's

theory: the artist read Blanc's texts and even looked for the most contrasting colours using balls of thread (Veldhorst, 2018, p. 140); (Vellekoop, 2014, pp. 246–249). His goal was to awaken opposing feelings in viewers by endowing additional colours with opposite semantics (see in detail Haziot, 2007, pp. 83–84, 197, 213–214, 220–221, 263–264, 297–299, 307, 309)¹⁵.

The most distantly related keys form similar opposites — the polar points of the circle of fifths, spaced by a tritone. Integrating this principle with the fundamental dichotomy between major and minor results in a formula that produces the most salient contrast in sound and semantic dimensions, especially when keys are compared directly: (sharp) major + (flat) minor, separated by a tritone. This formula can be revealed by analysing d'Indy's judgments on *Parsifal*: "the tone of D minor remains reserved for the idea of death" (1930, p. 51), while its "opponent" appears to be in A flat major, corresponding to "the idea of holiness" (*l'idée de sainteté*) (1930, p. 51). D'Indy takes an identical pair of keys as the basis for his *Le Chant de la Cloche*: for embodying wildfire and death respectively—creative energy and life. The substitution of G sharp major with A flat major—despite undermining the fundamental sharp (major) versus flat (minor) opposition—is justified by the principle of enharmonic equivalence and the practical limitations associated with keys involving double sharps.

This principle of enharmonic equivalence, as can be easily demonstrated, contradicts the concept of opposites of flat and sharp tonal spheres, and the very idea of equal temperament, from which enharmonic equivalence follows and which therefore should negate the semantics of tonalities. This problem greatly worried Albert Lavignac, whose views d'Indy also took into account. In the work *Music and Musicians* Lavignac claims that he does not understand why the semantics of tonalities remained in an era of equal temperament, but he accepts this as fact (1938, pp. 423–426).

On the one hand, a reason that may be inferred from Lavignac's own text is the partial or incomplete opposition between major and minor modes, which violates the symmetry of the well-tempered system in terms of both acoustics and the psychology of perception (and hence the effect of tonalities on

¹⁵ On Van Gogh's implementation of the phenomenon of a symphony of colours see Veldhorst, 2018, pp. 137–145.

the psyche). Unlike Riemann, who was a dualist, Lavignac emphasizes the artificiality of the minor scale and compares it to a greenhouse plant, specially bred and therefore bizarre, but somewhat “sick” (*malade*, Lavignac, 1938, pp. 58–59). From this analogy, it is easy to deduce the negative semantics of a minor key, replete with a variety of emotional nuances that can be associated with the idea of suffering and illness. Moreover, Lavignac’s scheme reflects the logic that is consistent with d’Indy’s ideas: the more flats a minor contains, the darker it becomes, which reaches an almost “lugubrious” (*lugubre*) psychological character—A flat minor, the extreme point (Table 2). Besides the neutral D minor, all other minor keys have negative semantics. In this regard, Lavignac proves to be more consistent in his approach than d’Indy.

Nevertheless, in the works of the latter, certain tonalities occasionally assume meanings that closely correspond to those proposed by Lavignac. For example, in *Le Chant de la Cloche* F minor becomes the key of deep sorrow, symbolizing the protagonist’s suffering after the death of his beloved (see the beginning of the fourth scene). The use of F minor can be explained by the influence of the opening bars of the third act of *Tristan*, and the obvious similarity of the melodic structure of musical motifs. In *L’Étranger*, this key is connected with the idea of fatality (d’Indy, 1950, p. 210). However, d’Indy’s ideas about the semantic possibilities of a minor are quite diverse, for instance in *Fervaal* in F minor he describes Celtic ceremony (see d’Indy, 1950, p. 202), which could well be due to his familiarity with both the Baroque tradition of semantics of tonalities¹⁶ and its interpretation by Riemann (Ishiguro, 2010, pp. 62–76).

¹⁶ Compare, for example, d’Indy’s interpretation of F minor with this description: “F minor was felt by Mattheson to be mild and relaxed, yet at the same time profound and heavy with despair and fatal anxiety” (Lenneberg, 1958, p. 236). In *L’Étranger* F major serves to express the idea of charity (d’Indy, 1950, p. 210), and Mattheson believes that this key “is capable of expressing the most beautiful sentiments, whether these be generosity, steadfastness, love, or whatever else may be high on the list of virtue” (Lenneberg, 1958, p. 235).

¹⁷ As with the first table, Lavignac’s original notation is preserved—firstly, because it conveys his uncertainty regarding the semantics of tonalities; and secondly, because it clearly illustrates two opposing vectors of semantic movement: one toward sharp keys, and the other toward flat keys.

Table 2. Tonal semantics according to Albert Lavignac (1938, p. 424). The question marks are set by Lavignac (perhaps they indicate semantic ambiguity¹⁷)

UT# majeur : ?	C# major: ?
FA# majeur : rude	F# major: rude
SI majeur : énergique	B major: energetic
MI majeur : éclatant, chaud, joyeux	E major: bright, warm, jovial
LA majeur : franc, sonore	A major: frank, sonorous
RÉ majeur : gai, brillant, alerte	D major: joyful, brilliant, buoyant
SOL majeur : champêtre, gai	G major: rustic, joyful
UT majeur : simple, naïf, franc, ou plat et commun	C major: simple, naïve, frank, or flat and common
FA majeur : pastoral, agreste	F major: pastoral, rustic
SI ♭ majeur : noble et élégant, gracieux	B ♭ major: noble and elegant, graceful
MI ♭ majeur : sonore, énergique, chevaleresque	E ♭ major: sonorous, energetic, chivalrous
LA ♭ majeur : doux, caressant, ou pompeux	A ♭ major: gentle, caressing, or pompous
RÉ ♭ majeur : plein de charme, placide, suave	D ♭ major: full of charm, placid, suave
SOL ♭ majeur : doux et calme	G ♭ major: gentle and calm
UT ♭ majeur : ?	C ♭ major: ?
La# mineur : ?	A# minor: ?
Ré# mineur : ?	D# minor: ?
Sol# mineur : très sombre	G# minor: very dark
Ut# mineur : brutal, sinistre ou très sombre	C# minor: brutal, sinister or very dark
Fa# mineur : rude ou léger, aérien	F# minor: harsh or light, airy
Si mineur : sauvage ou sombre, mais énergique	B minor: savage or dark, but energetic
Mi mineur : triste, agité	E minor: sorrowful, agitated
La mineur : simple, naïf, triste, rustique	A minor: simple, naïve, sorrowful, rustic
Ré mineur : sérieux, concentré	D minor: serious, concentrated
Sol mineur : mélancolique, ombrageux	G minor: melancholic, gloomy
Ut mineur : sombre, dramatique, violent	C minor: sombre, dramatic, violent
Fa mineur : morose, chagrin, ou énergique	F minor: morose, sad, or energetic
Si ♭ mineur : funèbre ou mystérieux	B ♭ minor: funereal or mysterious
Mi ♭ mineur : profondément triste	E ♭ minor: deeply sorrowful
La ♭ mineur : lugubre, angoissé	A ♭ minor: lugubrious, anguished

Thus, one could assume that this preservation of key semantics in the era of equal temperament was due to cultural memory—if this concept had existed in Lavignac’s time. Is this not, in essence, what d’Indy invokes when he traces the stabilisation of the principle of significant tonalities from Gluck to modernity? In developing the harmonic symbolism evident in his own compositions, does he not, in fact, draw upon the long-standing tradition of key interpretation that dates back to the Baroque? This tradition is reflected in the extramusical meanings he attributes to specific keys within each dramatic work. Might this be the very reason why d’Indy applies the concept of *significant keys* within the realm of musical drama—namely, that the verbal dimension serves to articulate extramusical meanings already historically encoded in the selected tonalities? After all, due to the initially unequal temperament and the convenience of using a particular key for a particular instrument (and hence the individual timbre and register colouring of a key), these extramusical meanings have already separated from the musical means that originally generated them. From this point of view, the concrete correlation between an “extramusical meaning” and a *significant key*, as well as the principle of such correspondences, shift from the category of psychoacoustic (perceptual) phenomena into the category of real cultural symbols conditioned by tradition and memory.

Conclusion

For d’Indy and his contemporaries, harmony constituted the foundational principle of musical structure and expression, rooted in the belief that harmony is inherent in nature (Saint-Saëns, 1922, p. 19). “In these modern days, harmony is the flesh and blood of music, rhythm is the ossature on which it is built up, and melody is its epidermis” (Saint-Saëns, 1922, p. 16). Saint-Saëns argued that even a chord sequence can produce an interesting melody (as in *Ange si pur* from Donizetti’s *La favorita*), and that some melodic lines, such as in the *Sehnsuchtsmotiv*, lack a characteristic expressiveness in themselves: harmony alone gives them brightness and originality (1922, pp. 18–19). In d’Indy’s interpretation, the famous “Tristan chord”, together with the resulting harmonic sequence, is an example of a “generative” harmonic cell (1909, pp. 234, 238). By generating a chain of “leading motifs”, this cell shapes not only the structural features of the work but also its stylistic character, thereby directing its affective impact on the audience.

In d’Indy’s view, harmony is a factor in the formation of an innovative musical manner, not only in the modern era, but also, in principle, at any turning point in musical history. He draws attention to the polyphony of the 14th century, and the discoveries of Gluck and Rameau, who dared to introduce “certain enharmonic passages”, as well as the work of Bach, Beethoven and Wagner, stating that “each inaugurated a new style that would inevitably lead to a modification in the other two musical elements: melody and rhythm” (d’Indy, 1930, pp. 45–46).

It follows that a special sensitivity to tonal colouring can also give rise to vivid stylistic experiments: the author can be guided by synesthetic representations and experiences, elaborating a tonal plan of composition. In this respect, d’Indy’s ideas partly anticipate those of Olivier Messiaen, with his clusters of multicoloured chords, whose lightness, saturation and brightness depend on register, timbre, and method of sound production (see, e.g., Wai-Ling, 2010, pp. 20–21). In addition to the practical, “authorial” implementation of cross-modal correspondences, the concept of *significant keys* resonates with the vector of theoretical reflections on the nature of aesthetic perception, characteristic of Lavignac, who sought to find the “mysterious law” (see Ishiguro, 2010, pp. 78–79) that governs the semantics of tonalities *in toto*.

This is not to say that d’Indy himself was capable of this. By deducing the correlations between Wagner’s keys and feelings and ideas, he rather groped for the algorithm of semiosis, which he applied in his own compositions. Focusing on his own feelings (in the case of aesthetic perception, it is impossible not to be a subjective idealist) and on Tradition, he outlined the range of those experiences and images that could be linked to a specific tonal colour, according to a dualistic concept multiplied by the opposition of sharp and flat keys. An additional factor in the development of semantics could be the degree of relationship of a particular key with the other key chosen as the main one, that is, as the semantic core of the work. For example, in *La légende de Saint Christophe* B minor is used, the key of the protagonist before he was baptized and found God; F sharp minor is interpreted as the key of the search for holy love, and D major as the key of sanctity (d’Indy, 1950, p. 216). The semantics of tonalities thus becomes the real code for understanding the process of semiosis in d’Indy’s work.

The composer’s concept is representative of the *fin de siècle* era. Firstly, it is grounded in the paradigm that “music is a language”, which was still relevant

at the turn of the 19th–20th centuries and promotes the interpretation of a work as a message, and its components as signs, the combination of which allows this message to be transmitted to a recipient. Secondly, this concept contributes to the history of musical semantics, whose origins can already be seen in the ancient idea of the ethos of modes, and which became especially relevant precisely in the era of Romanticism, with the development of “descriptive” symphonic music (since it is, in this case, that music *de facto* must correspond to a whole complex of extra-musical meanings in order for the work to be realized as an artistic whole). Ultimately, the specific meanings ascribed to “significant keys”—developed with regard to acoustic and harmonic dualism—render d’Indy’s concept a compelling example of combining semantics with relevant concepts in the field of acoustics and harmony during his time. As such, it exemplifies a holistic approach to musical theory and practice. This approach, as both an analytical and practical strategy in itself (adjusted for the huge evolution of ideas corresponding to acoustic phenomena and the very essence of music), was in demand and remains so even in our time, which furthers its value and relevance.

References

- Blanc, C. (1876). *Grammaire des arts du dessin* [Grammar of the art of drawing] (3rd ed.). Librairie Renouard, Henri Loones.
- Bodky, E. (1960). *The interpretation of Bach’s keyboard works*. Harvard University Press.
- Bonds, M. E. (2014). *Absolute music: The history of an idea*. Oxford University Press.
- Buch, E. (2006). Vincent d’Indy et la Première Guerre mondiale: Sinfonia Brevis de bello gallico. [Vincent d’Indy and the First World War: Sinfonia Brevis de bello gallico] In M. Schwartz & M. Chimènes (Eds.), *Vincent d’Indy et son temps* [Vincent d’Indy and his time] (pp. 21–36). Éditions Mardaga.
- Fulcher, J. (1990). Vincent d’Indy’s “Drame Anti-Juif” and its meaning in Paris, 1920. *Cambridge Opera Journal*, 2(3), 295–319.
- Gage, J. (1990). Color in Western art: An issue? *The Art Bulletin*, 72(4), 518–541.
- Hanslick, E. (1854). *Vom Musikalisch-Schönen. Ein Beitrag zur Revision der Aesthetik der Tonkunst*. [On the Musically Beautiful: A Contribution Toward the Revision of the Aesthetics of Music] Rudolph Weigel.
- Haziot, D. (2007). *Van Gogh* (Folio Biographies). Éditions Gallimard.
- Indy, V. d’. (1906). *César Franck*. Paris: Félix Alcan.
- Indy, V. d’. (1909). *Cours de composition musicale. Deuxième livre — première partie* [Course on Musical Composition. Second Volume, First Part.] (A. Sérieyx, Ed.). Durand et Cie.
- Indy, V. d’. (1912). *Cours de composition musicale. Premier livre* [Course on Musical Composition. First Volume.] (6th ed., A. Sérieyx, Ed.). Durand et Cie.
- Indy, V. d’. (1930). *Richard Wagner et son influence sur l’art musical français*. Paris: Delagrave.
- Indy, V. d’. (1933). *Cours de composition musicale. Deuxième livre — seconde partie* [Course on Musical Composition. Second Volume. Second Part] (A. Sérieyx, Ed.). Durand et Cie.
- Indy, V. d’. (1950). *Cours de composition musicale. Troisième livre* (G. de Lioncourt, Ed.). Durand et Cie.
- Ishiguro, M. A. (2010). *The affective properties of keys in instrumental music from the late nineteenth and early twentieth centuries* (Master’s thesis, University of Massachusetts Amherst). <https://hdl.handle.net/20.500.14394/47430>
- Lavignac, A. (1938). *La musique et les musiciens*. [Music and musicians] Librairie Delagrave.
- Lenneberg, H. (1958). Johann Mattheson on affect and rhetoric in music (II). *Journal of Music Theory*, 2(2), 193–236.
- Payzant, G. (1981). Hanslick, Sams, Gay, and “Tönend Bewegte Formen”. *The Journal of Aesthetics and Art Criticism*, 40(1), 41–48.
- Saint-Saëns, C. (1922). The ideas of M. Vincent d’Indy. In C. Saint-Saëns, *Outspoken essays on music* (F. Rothwell, Trans., pp. 1–51). Kegan Paul, Trench, Trubner & Co.; E. P. Dutton & Co.
- Sekimoto, H. (2007). Jean-Adam Serre (1704–1788) était-il dualiste? La justification de l’origine du mode mineur dans ses Essais sur les principes de l’harmonie [Was Jean-Adam Serre (1704-1788) a dualist? The justification of the origin of the minor mode in his Essays on the principles of harmony] (1753). *Musurgia*, 14(2), 7–34.
- Tolstoy, L. (1904). *What is art?* (A. Maude, Trans.). Funk & Wagnalls Company.
- Veldhorst, N. (2018). *Van Gogh and music: A symphony in blue and yellow* (D. Webb, Trans.). Yale University Press.
- Vellekoop, M., & Bakker, N. (2014). *Van Gogh at work*. Yale University Press.
- Wai Ling, C. (2010). Plainchants as coloured time in Messiaen’s ‘couleurs de la cité céleste’. *Tempo*, 64(254), 20–37.

<https://doi.org/10.17234/9789533793085.06>