Through the Lens of Syncopated Knowledge: When Physicians and Poets Scrutinise Cardiac Disorder

Ioana BALGRADEAN
“Carol Davila” University of Medicine and Pharmacy, Bucharest, Romania

ABSTRACT

In this paper I briefly visit three cardiac pathologies: syncope, as defined by Aretaeus of Cappadocia, cardiaca passio (heart disease), as discussed by Caelius Aurelianus, and mal d’amor (lovesickness), as presented in the medieval “Roman d’Eneas”. Using the theoretical perspective drawn by recent studies in situated cognition, I argue that these context-specific interpretations attest different modes of tackling a resilient, unruly, problematic, and the difficulty of pinning down the pathological manifestations in a definitive formula, or concept.

Keywords: cardiac pathology, situated cognition, heart, syncope, cardiaca passio, lovesickness, anatomy, narrative, history of medicine, emotion, literature.

In this paper I briefly visit three cardiac pathologies: syncope, as defined by Aretaeus of Cappadocia, cardiaca passio (heart disease), as discussed by Caelius Aurelianus, and mal d’amor (lovesickness), as presented in the medieval “Roman d’Eneas”. Drawing on recent studies in situated cognition, I argue that all three interpretations attest different modes of tackling a resilient problematic, and the difficulty of pinning down the pathological manifestations in a definitive formula, or concept. Jacelyn Duffin claims that disease, more than an account of symptoms and patients, is an explanation, a theory, about a particular kind of suffering. “Diseases are not immutable objects lying around waiting to be unearthed like potsherds in an archeological dig. The so-called discoverer of a disease has actually ‘elaborated’, ‘recognised’, ‘described’, or ‘invented’ a new way of understanding a problem that had previously been overlooked, or forgotten, possibly because it had not been considered a problem” (1).

Problems are situated: they arise in specific contexts. The way we think about them is, consequently, far from static, and the conclusions drawn on the basis of empirical data at hand are not facts, but the result of specific cognitive processing. As John Brown, Allan Collins Seely and Paul Duguid have established, “knowledge is situated, being in part the product of the activity, context and culture in which it is developed and used” (2). Also, some problems are rougher,
opaque, more challenging than others, they keep popping their heads in new contexts, begging attention and interpretation, time and time again. In the words of Andy Clark, such problems are “unruly”, or “representation-hungry”, they exact new formulations and solutions (3). In this direction, Ellen Spolsky argues that theories “have to take into account the evidence of failure”, failure testified by the very reappearance of the topics they treat: “[Reappearance] is not evidence of an unchanging, universal aspect of human life and culture, [it] is not a sign of permanent truth, but rather a sign of repeated failure, and also of an enduring hunger for satisfying answers. A recurrent image or motif is not used because it has been successful; rather it is evident of a resistant opacity, of a crux between human biology and sociality that has not yielded to the forms of representation on offer” (4). Spolsky assumes that “a new representation arises from a lack”, which does not mean that it is “guaranteed to solve the problem”, rather “it may arise opposition and destabilise things further” (5).

When the Greek physician Aretaeus of Cappadocia (active in the 2nd century CE) discusses syncope, and the Roman physician Caelius Aurelianus (active in the 5th century CE) tackles what he terms cardiaca passio (cardiac disease), they both refer to a pathological phenomenon, which strikes Jackie Pigeaud as almost identical (6). In the De causis et signis acutorum morborum, Aretaeus of Cappadocia states that syncope is undoubtedly “a disease of the heart or an alteration of the vital force it encloses … for this [deadly] affection is a solution of the links of the vital power (zōē dynamis) absolutely contrary to the constitution of man” (6; my translation). Aretaeus insists: this is not an affection of the stomach as some would claim, but “a disease of the heart and of the vital principle”, ultimately, of the soul and its faculties, which are also seated in the heart (6). Caelius Aurelianus’ cardiaca passio affects the heart, and his interpretation is based on the authority of Erasistratus and Asclepiades. Indeed, Caelius argues, it is the heart (cor) that is affected, not the pericardium (the membrane which envelops the heart), not the diaphragm, not the liver, not the lungs, as other physicians claim. To straighten things out with respect to the locus of the disease, Caelius comes up with various arguments: the lexical resonance between cardiaca and kardia, the Greek word designating the heart; the symptoms, which straightforwardly involve the heart (palpitation, oppression); and the greatness of the disease, the heart being the central, most necessary part of the human body, in charge with distributing the blood and the vital spirits (“Est autem cor praestans atque salutaris corporis particula, praeminstrians omnibus sanguinem membris atque spiritum”, De morbis acutis II, 180) (6). Given the centrality of the heart, Caelius concludes (with support from Soranus of Ephesus, who is his authority on this matter) that it is the entire body which is affected by cardiaca passio.

Pigeaud claims that the particular interest of these interpretations lies in the fact that they set out to account for similar symptoms, which may ultimately refer to different pathologies. The physicians themselves not only know it and acknowledge it, indeed, they struggle with this categorial ambiguity, and they do so by recurring to a rhetoric based on the history of medicine, which aims to record the different views of various medical authorities on specific points in question: Hippocrates, Soranus, Erasistratus, and so on. To be noted here that Hippocrates, whose conception of the human body is non-anatomical, makes no mention of kardia, although he does mention other organs, such as the lungs, or the uterus (6, 7). The ultimate stake of such confrontation of views, of course, is that of sorting the disorder out and formulating a diagnosis, of interpreting the empirical data, so as to circumscribe a pathological concept by means of distinguishing between similar cases (6). The confusion the physicians experience in the face of cardiac symptoms, i.e., symptoms involving the ambiguous kardia (Greek word which signifies both the heart and the opening of the oesophagus into the stomach), is thus not only due to the actual polysemy of the word, but goes all the way: it raises questions with respect to the actual anatomic seat of the disease and its physiological implications. Indeed, where, in what organ is the suffering located? Is it the stomach, is it the heart? Is it somewhere else, indeed, everywhere else, an affection of the body as a whole? Or maybe it involves the faculties of the soul as well, as Aretaeus of Cappadocia suggests? No trivial matter to worry over, for this verbal, anatomic and nosological ambiguity permeates the Western medical tradition through the 18th century, where we still find its
echoes in the works of French physician Marie François Xavier Bichat (6).

Clearly, these are accounts of unruly, complex cases, such cases in which the cognitive system “must, it seems, create some kind of inner item, pattern, or process whose role is to stand in for the elusive state of affairs” (3). In the face of such ambiguous manifestations, different physicians revise extant interpretational patterns so as to take into account changing contexts, and do not, for the purpose, refrain from proposing new categorisations when necessary. Spolsky explains that “because categorisations only name approximations of similarity but never identity, they too are always unstable. Because objects in the world may always be categorised in more than one way, categorisation judgments are always relative to the context in which they are used” (5). Cognitive systems are dynamic and corrective, i.e., they fill in the gaps where necessary, and revise whatever is no longer adapted and useful to understanding and interpreting the fluid data the world challenges us with (8). This is how we can account for the emergence of concepts such as syncope, or cardica passio, or, as I will discuss below, mal d’amor, or lovesickness. I argue that the specific ways in which physicians and poets grapple with these challenging questions, and with the different pathological concepts and mappings that arise in answer to them, are indicative of their conscious dealing with a problem that one solves only to unsettle things further, only so as to leave it open, as it were. In Ben Morgan’s words, such a problem is “an intractable knot to which cultures return repeatedly in an attempt to find a liveable if always reversible coping strategy”. He explains that “precisely because the problem remains, as Ellen Spolsky and Andy Clark would call it, unruly, the solutions and creativity of the past remain instructive. There is no single mode of situated cognition. But there is a historical archive.” (9).

And here, literature, artistic production in general, plays a crucial role by offering studies of case-by-case cognitive endeavour and negotiation in rich, environment-aware contexts, and by means of specific, mobile language (9, 10).

In support of this argument of formal and interpretational craving and necessity, I now turn to the solution offered by an anonymous French medieval poet, working in the 1160s at the court of Henry II and Eleanor of Aquitaine. I argue that his Roman d’Eneas is ground-breaking in its original writing of mal d’amor as a carefully and variously mapped cardiac affection, which requires extensive narrative treatment. I am also interested in the way in which these pathological mappings appear to revise contemporary medical scenarios, while becoming themselves potent cultural engines, bearers of coming forms and concepts. The text recounts Eneas’ arrival in Italy, where he falls in love with the local princess, Lavine (she is already sick with love for him, having seen him from her tower), and after successfully fighting her off his rival, fathers the lineage that will found Rome. And here is one of the key passages in the Roman:

\begin{quote}
“ier m’esgardastes de tel oil qui tot lo cuer me tresperça. Donc l’an sovint, si se pasma et rechei iluec ariere. Tote nuit fu an tel meniere Que il ne ot bien ne repos, Ne por dormir n’ot son oil clos. Tote la nuit fut an dolor, Ne li amanda pas lo jor.”\end{quote}

(“Yesterday you looked at me with such an eye that pierced right through my heart. He then remembered, and fell backwards in a swoon. He was in such a state that night that he could find no rest, nor could he close his eyes to find sleep. He was in pain all night, and did not fare any better the day after.”) (11; my translation). Falling in love at first sight couldn’t receive a cruder, more forceful account, and if metaphor is involved, then this is as literal and embodied as it gets. Standing at the foot of Lavine’s tower, where he remembers how she looked at him, indeed, how her eye pierced his heart, he then remembered, and fell backwards in a swoon. He was in such a state that night that he could find no rest, nor could he close his eyes to find sleep. He was in pain all night, and did not fare any better the day after.” (11; my translation). Falling in love at first sight couldn’t receive a cruder, more forceful account, and if metaphor is involved, then this is as literal and embodied as it gets. Standing at the foot of Lavine’s tower, where he remembers how she looked at him, indeed, how her eye pierced his heart, the day before, Eneas swoons. More precisely, the memory of that complex situation, i.e., their first eye-contact, literally throws him off his feet, and into the throws of a most serious form of suffering, which comes as no surprise to readers of the Roman, who already know what it is, for Lavine has been there before, and so has the other female protagonist, Dido. The symptoms – and Eneas concludes so himself after performing a minute evaluation of his overall situation – straightforwardly point to lovesickness, a disease caused by a wound to the heart, which further causes tremendous senso-rimotor, emotional and cognitive havoc. The symptomatology presented in the Roman d’Eneas (sighs, pallor, trembling, sweating, yawning,
swooning, screaming, agitation, insomnia, indefinite pain, anguish, etc.) is broader and more inclusive (at one point Lavine is seized with braying; or she feels that “li cuers li falt”, her heart fails) then the one conventionally registered in contemporary medical sources on lovesickness, which they term amor heros, or passio. Indeed, medieval physicians will be on the lookout for extreme sadness, pallor, sudden passage from laughter to tears, irregular pulse, sighing, dry, sunken eyes, eyelid twitching, loss of weight. Girardus Bituricensis famously classified lovesickness as acute cerebral disease (morbus cerebro contiguus) – disease that ultimately impairs judgement and intellectual functions – and the medieval medical tradition never departs from this categorisation (12, 13). And yet there is much more to the poetic scenario discussed here than a mere reiteration of the symptomatology of lovesickness recorded by the medical archive: in the Eneas, it is the heart that does all the feeling, thinking and acting, indeed, all the collapsing and recalibration there is to be done in a world ruled by violent change.

First and foremost, the Roman offers no clue allowing us to interpret the lovers’ suffering as cerebral pathology. Rather, the language of the text and its narrative organisation make it absolutely clear that we are dealing with a cardiac affection – and if one misses that, one misses out on the remarkable cognitive and epistemological agenda of the poem. What is more, the heart (the text terms it interchangeably cuer or corage, two Old French synonyms with a remarkably wide palette of meanings: “part of the body”, “seat of physical sensation”, “feeling, conscience of being alive”, “drive”, “inclination”, “feeling”, “intention”, “wish”, “innermost desire”, “seat of intelligence and judgement”, “seat of memory”, “interior part, centre”) (14), is here written as an ambiguous, indeed, indeterminate category. Not only do the words cuer and corage themselves indiscriminately bear multiple meanings, thus indicating a plurality of function and a powerful potential for semantic and cognitive unruliness, or, in any case, for resistance in the face of definitive categorisation. I argue that in the Roman d’Enneas, the actual anatomic seat of the heart is ambiguous and purposefully so. Thus, when Lavine first sees Enneas, she accounts her eye and heart as being concomitantly pierced by love’s dart (“en l’oil me feri de son dart … / tot le me fit al cuer coler”, vv. 8160, 8162). The syntax suggests that the arrow strikes (the eye) and sticks (to the heart) in one collapsed movement, or that eye and heart are one and the same, or sharing an ambiguous relation of superposition, or proximity, of sorts. Lavine then locates the arrowhead as being stuck to her heart, which she situates, this time, under her breast (“desi qu’el cuer soz la memelle”, v. 8067). But neither anatomic categories, nor the female protagonist’s acute situation and cognitive grasp of it are stabilised as yet. Only a little later, she collapses in a fainting fit triggered by unbearable pain (“Arierie chiët, si s’est pasmee”, v. 8341), and she interprets the swoon as being caused by Enneas, who, she claims, has extracted her heart from her stomach/womb (“Il l’o m’a de mon ventre anblé”, v. 8351). A few lines down she will revise her former medical narrative, by explaining that he has torn her heart “from underneath her armpit” (“Desoz l’eisselle l’o m’a trait”, v. 8354). Enneas’ surgical hands operate in absentia, of course, for at this point the two potential lovers haven’t even met, and the bottomline here is that the language of the observer, i.e., of the sufferer herself, is mapping out a fluid anatomy of pain grounded in her own flabbergasting lived experience. For it is sensorimotor data indicating acute pain that builds into the interpretation that someone has been rummaging about the princess’ stomach, or armpit (15). And this sensorimotor, affective, information needs serious sorting out – and floats, in the process, more than one categorisation, or “embodied abstraction”, as Jeffrey Binder and Rutvik Desai put it, for “repeated exposure to sense data produces concepts, abstractions that can be manipulated as knowledge, but, crucially, without reference to the data from which they were originally constructed” (8). The poem itself appears as a raging battleground where concepts and interpretations shoot out to rise and fall like arrows circumscribing an unsteady, yet resourceful, cognitive forcefield. We cannot help thinking (and should not) of the ambiguous kardia and of related corporeal manifestations of a complex and unruly nature that beg the question time and again, as testified by the physicians.

The cognitive and anatomic ambiguity is further suggested by the proximity between the Old French words cuer, corage (the etymology of both words is to be traced back to the Latin cor, “heart”) and cor(s) (“body”), suggesting that,
somehow, body and heart are (or behave as) one and the same thing, mysterious identity that Eneas’ and Lavine’s swoons seem to confirm. We remember that for Caelius, an affection of the heart is a serious affection of the body as a whole, while Aretaeus establishes that it can disrupt the faculties of the soul as well. The Old French word pasmer (“to swoon”) comes from the Latin spasmus (“cramp”) and, by its close narrative association with an ambiguously located cardiac organ, interestingly suggests that syncope manifests itself as a serious and relatively extensive spasm, something like a systemic short-circuit, which cuts off perceptual, sensorimotor and cognitive action. More basically, to swoon is to shut down and fall over, but having the verticality of one’s body thwarted is a complex affair as far as human cognition is concerned, as Spolsky points out (8). It is Victor Smetacek who suggested that “balance in relation to gravity is the most basic level at which the ability to recognise failure or error activates mechanisms of correction with survival value” (8). In other words, the body’s proprioception “scales up”, as Smetacek puts it, “to an understanding of abstraction and fairness” (8). It is therefore only logical that when one’s sense of balance fails, cognitive crisis should follow and require instant repair. And this is what the Roman d’Eneas repeatedly insists on, by driving home the point with the efficacy of an arrowhead: the swoon is an interpretational stumbling block, it says. For the question that arises with each fainting fit is: how do you restore balance and order of body, of knowledge, of community? To get back on one’s feet and marry the man she loves and to achieve an important political alliance, to get back on his feet and horse, and fight the war whose stakes are the woman he loves and the land where he will found an empire – that, and survive a potentially deadly heart illness, is what Lavine and Eneas need to achieve here. Their cardiac, affective dis-ease has to be cured (love is both the disease and the physician here, so fulfilled love will do the trick) and geared into an engine of History. As climax of cardiac suffering, the swoon – and remember that this concept is not to be abstracted from, but always to be interpreted against its narrative context, i.e., as situated in the continuum of a specific cardiac affection – throws categories scandalously open, thereby calling forth a gap, which requires urgent (re)filling, effective, however temporary solutions. By repeatedly closing in on the moment of crisis, the poem makes a virtue of necessity, it plugs in a series of revisions, which work to establish a revolutionary intellectual agenda. In Eneas’ and Lavine’s illness there is more at stake than mere muscular and cognitive failure and recalibration, and certainly much more than a conventional rerun of a lover’s complaint. What we have here is the resourceful embryo of an emerging scenario that fearlessly reorganises the established medieval epistemology based on moral responsibility and free-will, by exploring the possibilities of an alternative cognitive system, one that approaches emotion and illness as continuous, as embodied, and situated. The poem crucially builds on a mobile concept of the heart, and the emerging cognitive schemas, which endeavour to account for this exacting versatility, will feed forward, into the culture at large, to play a major role in the creation of a growingly dissonant and changing intellectual scene (15).

When they tackle cardiac questions, both Aretaeus of Cappadocia and Caelius Aurelianus express the awareness of facing a crux as they reach out towards their predecessors for all the help they can get in solving the problem. The Roman d’Eneas stages exactly that crux and presents cardiac suffering as a kind of ground zero, bringing forth new categories, new knowledge about how humans feel, suffer, and think. The poem itself successfully worked a few twists and turns in Western culture. Spolsky has argued that considering literature, artistic works in general, “as artefacts on a par with arrowheads and antibiotics rather than as messages from a privileged if useless aesthetic realm prompts us to investigate the hypothesis that the works of artists has work to do” (5). The crux of the matter is that we only know what we know, and there is room for more, other ways to go about it, as the texts discussed here attest. Recognising and mobilising suffering and failure, and finding the means to turn them into new concepts and actions that will suit changing contexts is empowering to individuals and communities, and it is key.

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