

A Case Study of Contextual and Emotional Modulation of Source-case Selection in Analogical Arguments

MARCELLO GUARINI

*Department of Philosophy
University of Windsor
401 Sunset Avenue
Canada
mguarini@uwindsor.ca*

Abstract: In making analogical arguments about actions, is more similarity between the source and target cases always better? No: *all things considered*, more similarity is not always better, even if the similarities are all relevant. The reason is that the context of the argument, including emotional considerations, modulates the selection of the source case to service the goals of the argument. If the goals of the argument include persuasion and even modifying someone's emotional state, increasing the overall similarity between the source and target may be counterproductive.

Résumé: En avançant des arguments analogiques sur les actions, une plus grande similitude entre les cas source et cible est-elle toujours meilleure? Non : *tout bien considéré*, plus de similitude n'est pas toujours mieux, même si les similitudes sont toutes pertinentes. La raison en est que le contexte de l'argument, y compris les considérations émotionnelles, module la sélection du cas source pour atteindre les objectifs de l'argument. Si les objectifs de l'argument incluent la persuasion et même la modification de l'état émotionnel de quelqu'un, augmenter la similitude globale entre la source et la cible peut être contre-productif.

Keywords: action, analogy, context, emotion, empathy, narrative, persuasion, practical reasoning, rhetoric, similarity

1. Introduction

Arguments from analogy have been characterized in different ways (Juthe 2005, 2014). They are generally understood to have a source and a target. The source is the case from which we argue, and the target is the one toward which we argue. Aristotle's views

on argument from example (*paradeigma*) and argument from likeness (*homoiotis*) are often thought of as articulating his ideas on what has come to be called argument from analogy (Lloyd 1966, Bartha 2010, Kraus 2015). Paul Bartha's (2010, pp. 36-40) analysis of Aristotle's views yields criteria for evaluation where more likeness or similarity between the cases compared is better than less likeness or similarity. The idea that more similarity is better than less similarity is found in John Stuart Mill (1843/1930, p. 367) and the work of others to be cited later in this paper. The tradition that prefers proximal over distant similarity in assessing analogical arguments runs deep. To be sure, all parties agree that the two cases cannot be identical: analogy does require that there be some difference between the cases. However, there are disagreements over how much difference is needed for two cases to count as analogous. For example, see Olmos' (2014) discussion of Aristotle, Walton, Perleman and Olbrechts-Tyteca. This paper will take an inclusive approach to analogical arguments, where even very similar cases can count as analogical, provided they are not identical.

Recognizing that there are many domains in which analogy operates (Guarini et al. 2009) this paper will focus on analogies used in arguing about action. The position defended herein is that, all things considered, greater overall similarity between the source and target cases is *not* always better for achieving the goals of the argument. The reason is that the context of the argument, including emotional considerations, modulates the selection of the source case to service the goals of the argument in a given context. Sometimes, the goals and the context of the argument are such that very high levels of similarity between source and target would be ineffective. In the process of making this point, the importance of emotion in some analogical arguments will be discussed, as will the significance of the preceding points for argument construction, interpretation, and assessment. Hafner and Berman (2002), Walton (2010, 2013), and Walton and Hyra (2018) have argued for the importance of contextual considerations in analogical arguments. This paper adds to that kind of work by focusing on how emotion can impact source-case selection.

The rest of the paper takes the form of a case study of an analogical argument with an emotional dimension. It is rhetorically rich, structurally complex, and possesses a high level of expository density. It involves one interlocutor, Nathan, persuading another interlocutor, David, that he has erred greatly in his deeds. Arguably, Nathan is also trying to change how David feels about his own actions. Not all arguments from analogy are as emotionally charged as the one studied herein, but it is not unusual for ethical and legal arguments to be about emotionally charged issues. Moreover, it is quite common for them to be offered in dialectical contexts. By working through an example in some detail, we will come to see that while relevant similarities are important, they cannot be the whole story. Part two the paper will present Nathan's dense argument and unpack some of its analogical, structural complexity. Part three will begin to explore the rhetorical sophistication of the argument by examining the role that emotion plays. Part four will introduce the notion of near-identical source and target cases, which will be contrasted with the type of source and target cases involved in Nathan's argument. That contrast will be central in establishing that greater overall similarity between the source and target cases is *not* always better for the purpose of persuasion or affecting someone's emotional state. Part five will be a broader, multi-disciplinary discussion of work on analogy, indicating some areas in which more work needs to be done. Part six is the conclusion.

2. A case study: Reconstructing Nathan's argument to David

The story¹ of David and Bathsheba is well known, though what might be less well known is Nathan's argumentative intervention with David. Let us begin with a review of the story. (It is found in

¹ Some (though not I) take this story as a literal portrayal of what happened—that is, as a completely accurate historical account. Others see it as a work of complete fiction. Still others see it as something like Shakespeare's *Richard III*, in essence, based on historical figures with many fictional details added to help the author(s) achieve their purposes. For ease of exposition, this paper is written as if the events transpired exactly as presented in the relevant texts, but there is no commitment to that view. Notwithstanding considerations of historicity or lack thereof, the story is instructive and worthy of examination.

2 *Samuel* of Alter 2019, vol. 2. All references to Hebrew scripture are from Alter 2019.)

Notwithstanding the fact that King David has several wives and multiple concubines, he is very much taken with Bathsheba, who was married to Uriah (a loyal and devoted soldier in David's army). David has Bathsheba brought to him while Uriah is away, and she becomes pregnant by him. David attempts to cover up the fact that this is not Uriah's child by having him sleep with Bathsheba, but in accordance with custom he will not do so while some of his comrades are in battle. To hide the affair with Bathsheba, and to have Bathsheba for himself, David instructs his general, Joab, to send Uriah to the front lines and engineer a scenario where he is sure to be killed. The scenario engineered by Joab leads not only to Uriah's death but the death of other soldiers as well. After Uriah is killed, David is free to marry Bathsheba, which is exactly what he does.

This was not David's finest hour.

Nathan (a prophet) is one of the people who knows what David has done. He approaches David and tells this story:

Two men there were in a single town, one was rich and the other poor. The rich man had sheep and cattle, in great abundance. And the poor man had nothing save one little ewe that he had bought. And he nurtured her and raised her with him together with his sons. From his crust she would eat and from his cup she would drink and in his lap she would lie, and she was to him like a daughter. And a wayfarer came to the rich man, and it seemed a pity to him to take from his own sheep and cattle to prepare for the traveler who had come to him, and he took the poor man's ewe and prepared it for the man who had come to him (2 *Samuel* 12: 1-4.)

David flies into a rage. Notice how he cites a lack of pity as his reason for wanting to see the rich man severely punished:

And David's anger flared hot against the man, and he said to Nathan, "As the Lord Lives, doomed is the man who has done this! And the poor man's ewe he shall pay back fourfold, inasmuch as

he has done this thing, and because he had no pity!” And Nathan said to David, “You are the man! (2 *Samuel* 12: 5-7.)

In his commentary, Alter (2019, vol. 2) describes Nathan’s response as an “accusatory explosion” (p. 351), a snapping shut of a “rhetorical trap” (p. 352), and a “knife thrust” (p. 352). Crucially, David is *angry* at the rich man’s lack of *pity*. Nathan is looking to transfer these emotions to the situations at hand, namely, the adulterous affair and the killing of Uriah. I interpret this as analogical arguing. There is much more going on in the relevant text—see the appendix for even more of the relevant text—but the focus in this paper will be on the arguments by analogy and their analysis.

Several comparisons are being made between the David-Uriah-and-Bathsheba (DUB) situation and the rich-man-poor-man-and-sheep (RPS) case. In fact, DUB consists of at least two different actions or sequences of actions that can be called into question.

A₁: David sleeps with Bathsheba while she is still married to Uriah.

A₂: David conspires to have Uriah killed so that he will be free to marry Bathsheba and cover up the affair and pregnancy; Uriah is killed; David marries Bathsheba.

Let us say that

DUB₁ is the portion of the story that concludes with A₁, and

DUB₂ is the entire story, including A₁ and A₂.

DUB₁ is a substory of DUB₂.

Let us call DUB₁ and DUB₂ the target cases—that is, the cases about which Nathan wants to make his point. The RPS case is the source. The arrows indicate mappings or correspondences from source to target. An “ $\rightarrow X$ ” indicates there is no element in the target to correspond to some element in the source. An “ $X \rightarrow$ ” indicates there is no element in the source to map to an element in the target.

Source Case RPS		Target Case DUB₁
The rich man	→	David
The poor man	→	Uriah
The poor man's sheep (ewe)	→	Bathsheba
The poor man bought his sheep	→	Uriah married Bathsheba
The poor man owns only one sheep	→	Uriah has only one wife, Bathsheba
The poor man is kind to and cares for/protects his one sheep, an ewe	→	Uriah is kind to and cares for/protects Bathsheba
The rich man has many sheep and cattle	→	David has many wives and concubines
The rich man steals the poor man's only sheep	→	David sleeps with Uriah's only wife, Bathsheba
The rich man kills the sheep	→X	
	X→	David cannot compensate Uriah
The rich man does not feel pity	→	David does not feel pity
The rich man's theft is unacceptable in virtue of his action being a grossly self-indulgent taking that further benefits himself at the expense of an innocent man who is less well off. David is upset with the rich man because of what he did and because he showed no pity for the poor man.	→	David sleeping with Bathsheba is unacceptable in virtue of his action being a grossly self-indulgent taking that further benefits himself at the expense of an innocent man who is less well off. David should be upset with himself because of his affair and because he showed no pity for Uriah in this matter.

While the story does not explicitly state that Uriah was good to and cared for Bathsheba, the detail provided by Nathan about the care and affection (“... in his lap she would lie”) between the poor man and the ewe seems to be an attempt to imply that. The comparison of sheep to humans was common in this culture. Think of the 23rd psalm (Alter 2019, vol. 3)—“The Lord is my shepherd, I shall not want...”—which implies that those who recite, sing, or pray the psalm, *including David*, are like sheep under the guidance and protection of a divine shepherd. In this literary, cognitive, affective, spiritual, and performative environment, the intended comparisons would have been clear to David. In general, killing is morally salient, so the killing of the sheep is included in the source case. But if the ewe is mapped to Bathsheba, then there is nothing in the target to which we can map the killing of the ewe, so the killing of the ewe is not mapped to anything.²

Let us consider a second set of mappings (below). Note that the rich man stealing the sheep needs to be mapped to a sequence of actions in DUB₂. On its own, David marrying someone would not be problematic. To capture David’s wrongful taking, his marrying Bathsheba must be seen as part of a *sequence of events*. Nathan’s argument is not fully articulated. He never claims that both A₁ and A₂ are forms of self-indulgent taking. However, by saying that David is like the rich man, he is saying that A₁ is like stealing the sheep, and he is saying that A₂ is like stealing the sheep as well. If stealing the sheep is mapped simply to conspiring to kill Uriah—the first of the three elements in the mapped sequence below—it is not clear how that amounts to any kind of taking since the sheep is mapped to Bathsheba, and Uriah is the one being killed. If stealing the sheep is mapped to David’s conspiracy and its successful execution by Joab—the first two elements in the three-element sequence below—we have the same problem.

² There might be a way to map the killing of the sheep to something in the target case, but it would require clarity on whether Bathsheba was a willing participant in David’s actions. *If* she was opposed, then David having sex with her would qualify as an act of violence. Killing is an act of violence. Killing could be mapped to rape in virtue of both being acts of violence. The text is silent on Bathsheba’s perspective. In the interests of not assuming too much about what Nathan knew, the presentation above does not map the killing of the ewe.

Source Case RPS		Target Case DUB₂
The rich man	→	David
The poor man	→	Uriah
The poor man's sheep (ewe)	→	Bathsheba
The poor man bought his sheep	→	Uriah married Bathsheba
The poor man owns only one sheep	→	Uriah has only one wife, Bathsheba
The poor man is kind to and cares for/protects his one sheep	→	Uriah is kind to and cares for/protects Bathsheba
The rich man has many sheep and cattle	→	David has many wives and concubines
The rich man steals the poor man's one sheep	→	<i>David sleeps with Uriah's only wife, Bathsheba</i> <i>Bathsheba becomes pregnant with David's child</i> <i>David wants to cover up his affair with Bathsheba</i> <i>David wants to have Bathsheba for himself</i>
		David conspires with Joab to kill Uriah so David can marry Bathsheba and cover up his affair
		Joab assigns Uriah to a battle group given a dangerous task, one designed to lead to losses; Uriah is killed; Bathsheba is widowed.
	X→	Others in the battle group die as well
		David marries Bathsheba
The rich man kills the sheep	→X	
	X→	David cannot compensate Uriah

The rich man does not feel pity → David does not feel pity for having Uriah killed and marrying Bathsheba

The rich man's theft is unacceptable in virtue of his action being a grossly self-indulgent taking that further benefits himself at the expense of an innocent man who is less well off. David is upset with the rich man because of what he did and because he showed no pity for the poor man.

David taking Uriah's wife by having him killed is unacceptable in virtue of his action being a grossly self-indulgent taking that further benefits himself at the expense of several innocent men who are less well-off. David should be upset with himself because of his conspiracy to kill Uriah and marry Bathsheba, and because he showed no pity for Uriah in this matter.

In what sense has David self-indulgently *taken* anyone? If stealing the sheep is mapped one-to-one to David marrying Bathsheba, it is unclear how that is problematic because marriage is not generally self-indulgent taking. The one-to-three mapping in the context of the other mappings captures a taking that is grossly self-indulgent. A very different type of interpretation is logically possible. We could read Nathan as saying that the *combination* or *conjunction* of sleeping with Bathsheba (A_1) and having Uriah killed (A_2) is problematic, but individually there is no problem. The gross self-indulgence could be seen as resulting from having done *both* of A_1 and A_2 (but each of them individually would not be problematic). The mappings would look different on that interpretation. Given that *Exodus* 20: 13-17 lays down commandments against adultery and coveting as well as killing, it is reasonable to think that Nathan was objecting individually to A_1 and A_2 , hence the reconstruction offered.

The killing of Uriah makes it impossible to compensate him, which is an important difference between the source and the target.

The rich man could compensate the poor man with more sheep as per *Exodus* (21: 37), but Uriah cannot be compensated by David. Another important difference between the source and the target is that many soldiers die in the target. This “collateral damage,” as we might say today, is morally salient and has no analogue in the source. Clearly, what David has done *is worse* than what the rich man has done, but Nathan’s argument is not about every facet of David’s wrongdoing. For the analogy to be effective, it need not engage every part of what David has done.

For this second analogy to work, we need to assume that the laws of *Leviticus* (20: 10) and *Deuteronomy* (22: 22) (Alter 2019, vol. 1) are not being applied. They require that both adulterers be put to death. Putting David and Bathsheba to death after they commit adultery would mean the rest of the story does not happen—but it does. That these laws are not applied in the second analogy does not negatively affect Nathan’s argument. Among other things, Nathan is trying to get David to see he is out of line with the laws without using the laws in his premises. If we look at just the first analogy, the laws of *Leviticus* and *Deuteronomy* mean there is no way for David to compensate Uriah for the adultery because once it happens, they require that David and Bathsheba be put to death. There can be no compensation comparable to making the rich man repay the stolen and slaughtered sheep.

Four consecutive points in DUB₂ have been identified in italics. They are included because they provide the background for understanding the actions that follow them. That Bathsheba is pregnant by David is the evidence for the affair that David wants to cover up. It is not quite right to place an ‘X’ next to each of those four claims because they help us to understand the one-to-three mapping. Without them, we might ask, “How does killing Uriah and marrying Bathsheba cover up an affair?” So, should we make it a one-to-seven mapping by including the statements in italics? No: the relation being mapped from the source is *theft*, and the three points to which they are mapped in the target capture the idea of David “stealing” or wrongfully taking Bathsheba. A one-to-seven mapping is not needed to capture that. However, if we omit the four points in italics, it is unclear how marrying Bathsheba covers up the affair, which is one of the motivations for his “theft.” The

points in italics explain that she became pregnant by David, which is why taking Bathsheba and marrying her would make it look like David is the father—an effective cover-up. The italicized points are background conditions for understanding the one-to-three mapping. Arguably, there are two parts to the magnitude of David’s self-indulgence. First, he has many wives and concubines and sees fit to take another man’s wife. Second, he is killing not only to take Bathsheba for himself; he does it to cover up his own misdeed. This has nothing to do with killing or warfare for the good of the nation (or something similar). It is killing for utterly self-interested or self-indulgent reasons. He has the power to get away with it, and he indulges in that power. Nathan’s disapproval is hardly surprising.

Hopefully the above has shown some of the structural complexity involved in the analogies. The conclusions of the two arguments can be found in bold at the end of the tabular representations. With respect to argument reconstruction, if we distill the final product out of the dialogical process, we could render it into canonical premise-premise-conclusion (PPC) format. In this paper, I do not wish to take up the debate over deductive versus non-deductive reconstructions of analogical arguments in any detail, and getting into a PPC presentation requires weighing in on that controversy. Kraus (2015) and Juthe (2020) review much of the literature in that debate. Suffice it to say that whichever approach one prefers, the importance of emotional and other contextual considerations discussed in this paper will have to be addressed.

It might be wondered why Nathan does not simply appeal to the relevant commandments against murder and adultery to persuade David that he has gone astray. Among other things, the next section will engage that question.

3. The role of emotions in Nathan’s argument

To understand what Nathan was doing, it helps to introduce some contemporary terminology. People are engaged in *motivated inference* when their desires or emotions inform the inferences they draw; in essence, the inferences are not based simply on the evidence and are self-serving (Kunda 1990; Kunda 1999, chapter 6.).

(See also Dunning et al. 1995.) It is not hard to imagine that David's desire for Bathsheba could have been motivating his reasoning about what counts as acceptable or unacceptable behaviour for a king. Let us see how this might work.

David was a king in command of military forces. It is not unusual for generals and kings to send soldiers to their death. Indeed, both *1 Samuel* and *2 Samuel* are filled with stories of King Saul and King David waging war and being involved in the killing of *many* people. Indeed, King Saul was instructed by the prophet Samuel to kill all the people and animals in Amalek. Saul killed many, but he spared the life of King Agag and some of the prized animals. Samuel chastised Saul for not following the instructions to the letter, which is to say that he should have killed the Amalek king and all the animals. The prophet Samuel himself executed King Agag (*1 Samuel* 15: 1-35). The impression of David is that he was either more willing or more able to kill than Saul. (The "or" is inclusive.) It is said that women celebrated and sang out that,

"Saul has struck down his thousands
and David his tens of thousands!" (*1 Samuel* 18: 7).

These exact words are repeated over (*1 Samuel* 21: 12) and over (*1 Samuel* 29: 5), and it is always indicated that the words were sung *in praise*. Clearly, the commandment against killing was not being interpreted as exceptionless. It is possible that David might have thought that by sending Uriah to the front lines, he was acting within the powers of a king. The desire to cover up his affair and have Bathsheba for himself prevents him from seriously considering that there are limits to the power of a king; consequently, sending Uriah to his death may have seemed an acceptable use of his power. To be sure, such reasoning is self-serving, but that is how motivated inference works. In response, it might be argued that it is one thing to kill in self-defense or in defense of a nation, but quite another to kill for purely self-indulgent reasons. Of course, David did not see that distinction, and simply telling him that killing is wrong would not help him to see it. Nathan realized he was not going to get through to David by appealing to the relevant commandments, especially since the one against killing seemed to

have known exceptions. Nathan needed to tread carefully. David sent an innocent and loyal man (Uriah) to his death to get his way. The RPS story is insightful (and careful) for at least two different reasons. Both have to do with emotion. Moreover, the argument itself appears to be an attempt not only to persuade David in some respects, but to get him to *feel* a certain way. Let us examine Nathan's emotionally informed approach to persuading David.

One reason Nathan's argument is insightful is that it does not contain content that might interfere with the desired response from David. RPS will allow Nathan to argue that what David did was wrong without mentioning adultery or the murder of a human being in the source case. Any source case that mentions adultery or murder is likely to get David's "back up." For reasons that will be explained below, Nathan needs to elicit a strong response against a certain kind of action in his source case; doing so would likely require steering clear of pecuniary interests, lest he make David suspicious that he has come to preach to him about adultery. Adultery and conspiracy to kill are nowhere mentioned in the source. While it is not flattering for Bathsheba to be compared to a sheep, using a story that makes use of a sheep, rather than a person, is part of why the analogy appears to work on David. He will not think the source case has anything to do with his pecuniary interests or with the killing of a human being, and that helps Nathan get the response he needs from David.

A second reason Nathan's argument is insightful is that the story of sheep theft is likely to speak to David in a powerful way. When he was younger, David was neither a king nor a prince. He lived a much humbler existence tending his father's sheep, protecting them from all comers, human or animal. David took great pride in being a capable shepherd. Nathan must have known that the story of sheep theft—especially from a man who had only one sheep—would elicit a powerful response from David. *And it did.* *Exodus* 21: 37 (Alter 2019, vol. 1) prescribes that the theft of one sheep is to be repaid with four sheep; David goes beyond this and says the thief is "doomed" (which is the biblical way of saying he should die for his offense). David was *livid*, and part of the reason for that was the thief's lack of pity. This was exactly the response

Nathan needed. With it, he could compare the RPS case with what David had done.

Clearly, Nathan was not lacking in rhetorical savvy. He knew his audience well, with a firm grasp of what to avoid saying in the presentation of his source case and an equally firm grasp of what would move David.

While there is both ancient (Aristotle's *Topics*, Bk. II) and recent work (Gilbert 1994, 2004, 2014) on emotion and argument, and while there is work on emotion and reasons (Pinto 2011; Pinto and Pinto 2016), much excellent, philosophical work on analogy has not discussed emotion. (All references to Aristotle are from Barnes, 1984.) Juthe (2014) and Alvargonzález (2020) have surveyed much literature and have developed classification schemes for analogy, but emotion is not discussed. Even Ribeiro's (2014) excellent anthology does not contain words such as 'emotion' or 'affect' in the index. To be sure, not everything can be covered in one article or one book. Thagard and Shelley (2006) do discuss emotion and analogy. They examine different ways in which analogy can be related to emotion, and reviewing their distinctions will help us to understand better Nathan's intervention with David. Thagard and Shelley (2006, pp. 32-41) distinguish three ways in which analogy and emotion can be related: analogies *about* emotion, analogies that *generate* emotions, and analogies that *transfer* emotions (and these are not mutually exclusive, so they can combine in different ways). An analogy *about* emotion compares an emotion with something else, such as John Donne's "Love was as subtly caught, as a disease;/ But being got it is a treasure sweet" (Thagard and Shelley 2006, p. 33). Some analogies are offered to *generate* emotions, including (but not restricted to) humorous responses. Thagard and Shelley offer many examples, including this one:

Melissa Franklin (Harvard physicist) on quarks: "It's weird. You've got six quarks; five of them are light, and the sixth is unbelievably heavy. It's as if you had Sleepy, Dopey, Grumpy, Happy, and Kierkegaard" (2006, p. 40).

The mapping at work draws on a pun and is imperfect—there are six quarks and only five characters are mentioned—but it succeeds in generating humour. Thagard and Shelley (2006) also discuss three kinds of analogy that *transfer* emotions: those used in (i) persuasion, (ii) empathy, and (iii) reverse empathy. The terms ‘empathy’ and ‘reverse empathy’ are regimented for theoretical purposes, and they are not claiming to capture everything everyone means by those expressions. The analogical, empathetic use of emotion involves one person making use of one scenario (the source) that is like the scenario a second person is in (the target) for the purpose of predicting or understanding the emotion the second person is feeling. In reverse-empathy, one person tries to get another person to understand the emotion the first person is feeling by asking them to recall (or imagine) how they felt (or would feel) in a scenario that is like the one the first person is in. In empathy and reverse empathy, the primary function is to transfer emotion to achieve an *understanding* of someone’s emotional state. In analogical argument, the transfer of emotion from source to target, minimally, attempts to *persuade* someone. Let us examine the transfer of emotion in analogical argument. We will return to the role of empathetic analogy in understanding later in this section.

Nathan is not making an analogy *about* emotion in the manner of Donne’s poetry nor is he trying to generate an emotion *via* a surprising analogical mapping that draws on a pun (as is the case in the example of humour). Rather, he elicits an emotional response with the narrative of the rich man and the poor man, and *then* he tries to transfer that emotional response via a persuasive analogy.

Let us draw a distinction between *being persuaded* that a particular emotional response is appropriate, on the one hand, and *having* that emotional response, on the other. For example, one might say, “I am persuaded that I *should* pity Uriah, but I don’t feel any pity.” There can be a kind of doxastic transfer from what one believes about emotion in the source to what one believes about emotion in the target. It does not follow that one will feel the way one thinks one should feel. Analogical transfer of emotion itself requires that one or more feelings about the source is (are)

transferred to (i.e., *felt about*) the target. Nathan's argument is trying to achieve not only a doxastic transfer about what David believes should be felt, but also the transfer of emotion itself.

Arguably, Nathan does not want simply to persuade David to believe something; he also wants to change how he feels about what he did. With respect to DUB₁, culminating with David sleeping with Bathsheba, it is possible that David was emotionally motivated in a way that prevented him from seeing that he did was wrong. It is also possible that he may have seen that what he did was wrong—the text does present him as wanting to cover up Bathsheba's pregnancy—but he did not experience any regret, concern, or pity. Being emotionally motivated might prevent someone from believing something they should; it can also prevent someone from feeling a certain way. Perhaps, *if* David did think he did something wrong by sleeping with Bathsheba, he was still not having any of the feelings he might normally have when he does something he believes to be wrong. It is possible that Nathan not only wanted David to see that sleeping with Bathsheba was wrong, but also wanted him to get more emotionally worked up about what he did. If he is upset at himself for what he did and feels some pity for the people he mistreated, he might be less likely to make such a mistake in the future. The analogical transfer of emotion from the source case, RPS, to the target, DUB₁, helps achieve the desired goal of changing how David feels. He is angry at what the rich man did and the fact that he experienced no pity; if the analogical transfer of emotion is successful, he would be upset with himself and would experience pity (or understand that he should have experienced pity) for those he mistreated. In other words, over and above trying to modify David's beliefs, Nathan may be trying to help David cultivate a motivational and affective make-up that will improve his behaviour..

With respect to David marrying Bathsheba after having Uriah killed, there is no evidence that David thought he did anything wrong. Here, Nathan really has his work cut out for him. He wants to (i) persuade David that what he did was wrong and (ii) change how David feels about what he did. What is striking is that Nathan's source case does double duty: it can be applied to *both* the

adultery and the killing, serving to persuade David to think differently and to change how he feels.

As promised, we now return to analogy and empathy. Thagard and Shelley (2006) treat empathy as a way of understanding others. An analogy can be useful for achieving an empathetic understanding of another via a process that can transfer doxastic and emotional states from a source to a target. Thagard gives the example of his understanding of what it is like for a foreign student to be in the philosophy department where he worked (Thagard and Shelley 2006, p. 37). Thagard remembered what it was like when he was studying overseas and what he felt. This allowed him to have some grasp of the doxastic and emotional states of the foreign student. This is empathy achieved via an analogy. In this case, Thagard and his experience make up the source case, and the student and that student's experience make up the target. This is not a use of analogy for persuasion but the use of analogy to achieve understanding. Of course, these different uses of analogy can interact. To that, we now turn.

When Nathan tells David the story of sheep theft, he helps him to empathetically understand what it would feel like to be Uriah. David was once a shepherd, and by analogy, he could understand what it would have been like to be the poor man who had his sheep stolen and killed. There is an analogy between David and the poor man, and via that analogy, David empathetically understands what the poor man experienced. That empathetic understanding is what helps to bring about the emotional response of anger. David would have been angry if someone treated him that way when he was a shepherd, so the anger he would have toward such an aggressor is analogically transferred to the rich man for his treatment of the poor man. After David experiences that anger toward rich man, Nathan analogically transfers it, for the purpose of persuasion, by pointing out that David behaved like the rich man. It might be tempting to wonder how David could not see what Nathan was up to, how he could not see that he was, so to speak, being "set up." However, given the analogy David would have seen between himself and the poor man—in virtue of them both having looked after sheep—it is not hard to imagine that he could have been so engrossed in that way of looking at it that his

empathy for the poor man overtook him. Earlier in his life, there was a sense in which David bore some similarities to the poor man, so when Nathan pointed out that he was now behaving like the rich man, it would have been completely devastating. In other words, Nathan's narrative *first* helps David to analogically achieve an empathetic understanding of the poor man. This is what elicits the powerful emotional response from David. *After* that response, analogy is used to persuade David and change how he feels about what he did to Uriah. This happens when he is told that he is the rich man—that he is to Uriah as the rich man is to the poor man.

Empathetic analogy is not used for its own sake here (even though it might be used that way in many contexts). Rather, it is used to set the stage for a persuasive analogy. While Alvargonzález (2020) does not discuss emotional analogies, he is interested in classifying all kinds of analogies, including those not directly involved in argument. Surely there is something correct about this methodological inclination even for argumentation theorists. As we have just seen, some analogies may not be persuasive in and of themselves (for example, an analogy for the purpose of achieving an empathetic understanding) but they may be used *in the service* of persuasive analogies. While Alvargonzález (2020) appears to have been motivated by the internal structure of analogies as the methodological justification for his expansive classification scheme, the interaction between persuasive and other types of analogy may be another justification for an expansive approach for classifying analogies.

A few remarks on 'pity' are required before closing out this section.³ It is a word that can mean different things. In the passage

³ In every public presentation of earlier versions of this paper, the meaning of 'pity' was questioned. Some wondered if what was being suggested was some very strong form of compassion. Others wondered if 'piety' as a kind of (reverential) obedience is a better way of understanding the sense of 'pity' in question. Still others queried about possible connections to the Latin word '*pieta*.' This paragraph, and the next one, make it clear that while some affective component is present in the Hebrew term '*chamal*' being translated as 'pity,' it is not the strongest form of compassion we can imagine. Also, while there is an archaic sense of 'pity' that overlaps or may even be synonymous with 'piety' in English, it does not capture the meaning of 'pity' in this context. The Hebrew

quoted in part two, the Hebrew word being translated is ‘*chamal*’ (חַמַּל). We might translate this as to *feel sorry for and to spare*, or perhaps, *to act or refrain from acting out of a felt concern to prevent harm, loss, or other misfortune*. While related to having mercy, and while it is sometimes translated as ‘mercy,’ other Hebrew terms are often translated as pity or mercy as well. For example, ‘*rachamim*’ (רַחֲמִים) is sometimes translated as ‘pity,’ ‘mercy,’ or ‘compassion.’ ‘*Chamal*’ does not connote as strong an affective component as ‘*rachamim*.’ That said, *chamal* is not simply about refraining from some act. For example, one could refrain from harming someone because one fears being caught and punished for performing the act. That is not *chamal*. Sparing another in the sense of *chamal* involves acting in a way that is motivated by concern for the expected harm or misfortune that might befall the individual being spared. Both *chamal* and *rachamim* may be used to describe situations where someone prevents harm from coming to another, but there is a difference in the affective and motivational component of each. For example, Huey might not love Dewy, but Huey might spare Dewy some misfortune because, notwithstanding his lack of deep feelings for Dewy, he still does not want to see him suffer. That works as an example of *chamal*; it does not work as an example of *rachamim*. ‘*Rachamim*’ is derived from ‘*rechem*’ (רֶחֶם)—the word for womb. When ‘*rachamim*’ is translated to ‘pity’ or ‘mercy’ or ‘compassion,’ it suggests a very strong form of compassion or love—think of a mother’s attitude toward her child—and perhaps even a life-giving or life-enabling compassion (as its root, womb, is the life-giving or -enabling organ). What a mother feels for her child is beyond *chamal*/sparing.

Back to our story. David knows the rich man has done something wrong by not refraining from taking the poor man’s sheep. The relevant passage says, it is for that “...and because he had no pity” that David is so upset. The lack of pity/*chamal* is an offense *over and above* the lack of restraint shown by the rich man. Perhaps Nathan would like to move David closer to experiencing and

word being translated comes from a story dating to around the 10th century BCE. Its meaning needs to be understood in that context.

enacting *rachamim* and perhaps getting him to appreciate the importance of *chamal* is a first step in that direction, and perhaps empathetic analogies can help foster movement in that direction, but whatever Nathan's long-term hopes for David might have been, the sense of 'pity' at issue in the passage under consideration is *chamal*.

This part of the paper explicates the rhetorical sophistication of Nathan's argument, especially with respect to the role of emotion. In the next section, we will see how changing the context might change the source-case that it would be best to select. We will see how context modulates source-case selection, and why more similarity between source and target is not always better (all things considered).

4. Other contextual considerations

So far, we have seen that the emotional state of the audience can factor into the selection of a source case in making an analogical argument. There are other contextual considerations that factor into the selection of a source case. To see that, let us consider a different kind of source, an example of what I will call *near-identity*. For brevity, I will focus on the issue of conspiring to kill someone (DUB₂). Imagine that Nathan argued in the following way.

P1. A previous king that David has never heard of, having many wives and concubines, wanted to take another woman for his wife, but she was married.

P2. That king had the husband of that woman sent to the front lines and had a general engineer a scenario that would guarantee the death of the woman's husband so he could marry the woman.

P3. What that king did was unacceptable in virtue of it being a self-indulgent abuse of his power.

P4. David has many wives and concubines, and he wanted to take Bathsheba for his wife, even though she was married to Uriah.

P5. David has Uriah sent to the front lines and had his general engineer a scenario that would guarantee the death of Uriah so David would be free to marry Bathsheba.

C. Just as the previous king acted in an unacceptable manner, so too did David.

It is often said that for analogical arguments to work, the source and target cases need to be appropriately similar. In discussing similarity, we can speak of the parts of sources and targets, and we can speak of the entirety of sources and targets. We can speak of an object, predicate, or relation in the source as being similar to an object, predicate, or relation in the target. We can also speak of *overall* similarity between source and target, where we look at everything that is mapped or fails to be mapped from source to target (and what may be in the target but is not in the source). It is in this latter sense that ‘similarity’ is used in this paper (unless otherwise noted). A source and target that are near-identical are very similar when comparing the whole of the source with the whole of the target. That said, there are non-trivial differences. For example, in the story of the (made up) previous king, he does not commit adultery, and there are no soldiers killed other than the husband of the woman he wants. The fact that what David did is even worse than what the previous king did will not detract from the effectiveness of the analogy in certain contexts.

In the context we are considering, selecting a near-identical source case would not work. It would be an example of how introducing a greater level of overall similarity, without attention to the goals of the argument in a given context, becomes problematic. If David thinks that, as king, he has the authority to send a soldier to his death in a war, then simply using the argument from near identity will not persuade him that he is in the wrong. In David’s time, it would have been recognized that kings do have the authority to send soldiers into combat. Nathan needs to persuade David that there are limits to that authority. Sending someone into combat for the good of the nation is one thing. It is something quite different for the king to conspire to engineer a combat scenario that is guaranteed to get a soldier killed because the king wants the soldier’s wife. This latter scenario is an abuse of power in virtue of

its shockingly self-indulgent nature. It has nothing to do with the good of the nation. Even though Nathan's sheep-theft case is not as similar to DUB₂ as the near-identity case, it is a better choice when trying to convince David. *There is such a thing as too much similarity⁴ in analogical arguments.* The central thesis of this paper is that all things considered—in essence, when we factor in context and goals—more similarity between source and target cases is not always better than less similarity. To be clear, the problem with the near-identical source is *not* that it fails to have the relevant similarities to DUB₂; it is that this type of analogy will not be persuasive in the context we have been considering.⁵ In that context, it would be unhelpful to make use of it. That said, it is not difficult to imagine a context where a near-identical source case might be effective in analogical argumentation. Let us consider an example.

While fanciful, this scenario helps to make a plausible point about the role of context. Imagine David was brought to trial for sending Uriah to the front lines in the way he did. We will say that the statutory law is not clear on the limits of the power of the leader. We will imagine that the tribunal in question is one gov-

⁴This paper draws on a pre-theoretic understanding of similarity. Whether it is structure mapping (Gentner and Markman 1997) or dimensions (Ashley 1990) or other approaches, there are different ways of understanding and quantifying similarity between source and target. As it should be uncontroversial on any approach to similarity that the near-identity case is more similar to DUB₂ than Nathan's sheep story, this paper does not need to select a specific quantitative metric for similarity. Moreover, straying into that territory in any detail would require a separate paper.

⁵ Some might deny that the argument from a near-identical case is an argument from analogy. As indicated in the opening, there are differences regarding how much similarity or difference is needed for cases to be called analogous. For reasons I do not have space to explore here, I prefer a more inclusive account of analogy that does not insist that the source and the target be from different domains or that they have abstract relational mappings but no mappings of monadic predicates. See Bartha (2010, p. 69) for a discussion of why insisting on abstract relational matches will exclude interesting cases of analogical arguments involving very similar sources and targets. See also Bartha (2010, pp. 70, 196-197) for further concerns about excessive focus on structural/relational mappings. For those who prefer a more restrictive definition of analogical argument, then simply read this paper as being about case-to-case reasoning.

erned by *stare decisis*, there is a precedent case that is near-identical to what David did, and there are no countervailing precedents. David's attorney insists that he plead guilty because of the precedent case. Being a difficult client, David insists that his plea will be innocent and that his lawyer is being paid handsomely to defend him, so that is what he needs to do. The case goes to trial. The prosecutor appeals to the near-identical precedent, and the defense has nothing that can overcome the force of the near-identical precedent. The prosecution wins. In this context, it is not David who needs convincing; it is the tribunal hearing the case. Dispute contexts where there are near-identical precedents are unlikely to end up in court very often since competent and honest lawyers will often be able to convince their clients that they have no chance of winning if there is a near-identical precedent that could be used against them. However, some clients may be insistent, and some such cases may end up in court. In such a context, arguments from near-identical source cases would be very convincing.

How much similarity is needed in analogical arguments depends on the context, including the goals of the argument and the state and composition of the audience. When trying to convince a tribunal that is committed to deciding cases as they have been decided in the past, then selecting a source case that was decided in the past and is near-identical to the disputed or target case would usually be a good idea (though see Hafner and Berman 2002 for further contextual considerations that might not make it such a good idea). When Nathan was trying to make his point to David, it would have been useless to appeal to a near-identical source case because David would not have conceded that the near-identical source was an example of someone having done something wrong. He had no antecedent commitment in favour of treating the near-identical source case as an example of problematic behaviour. In the fanciful scenario where David is tried for his actions, he might remain completely unconvinced, but that does not matter from the perspective of the prosecution, because they are trying to convince the tribunal. The prosecution might use multiple cases, such as the near-identical source and Nathan's RPS

source, but such is not required given the way the example has been set up.

This example assumes we are dealing with a criminal trial. Some jurisdictions ban the use of analogical argument in criminal trials. See Giovannetti (1984), Langenbacher (1998), Naucke (1986), and Canale and Tuzet (2014) regarding issues with analogy in the criminal law in different jurisdictions. Different treatments of analogy in different jurisdictions helps to make the point about how sensitive analogical argument construction and evaluation is to the context of its use. Still, if the example being in a criminal context is concerning to the reader, we could imagine the example is civil in nature, where David is being sued for damages due to his causing a wrongful death, and we could imagine the precedent case was civil in nature. Indeed, we could imagine a purely ethical variant on the example. Consider a near-identical case where the king in the source is highly regarded by David. Say this king is someone David tried to emulate, someone whose opinion he held in high regard. Say that king engaged in actions very similar to David's, and that king eventually agreed that what he did was profoundly unethical. In such a situation, the near-identical case might carry some weight with David. If Nathan had such a king to whom he could refer, then a near-identical source might have persuasive force *in that context* (which is not to say it could do all the work of the RPS source, which involves generating an empathetic understanding). However, he had no such prior case to which he could refer, so in the context in which he was working, he was better served by looking for a different kind of source case, one that was not so like the target. Regarding the difference in evaluation standards between contexts where there are no precedents and contexts where there are well-established precedents, see Stevens (2018).

When it comes to the selection of source cases in analogical argumentation, context modulates how much similarity is advisable between the source and the target cases. To be sure, context can *also* modulate which things are seen as similar. This is a point that has been discussed in the literature (Holyoak and Thagard 1995; Walton 2013; Macagno et. al. 2017). Let us call this *modulation of similarity*. For example, in many contexts it would seem

bizarre to say that stealing a sheep is like committing adultery or conspiring to commit murder, but context can modulate our sense of similarity so that what does not seem similar in some contexts is similar in other contexts. That context modulates which things count as similar in the first place (and even the magnitude of the similarity) is an important point and has been well-made, *but this paper is making another point*. Not only can context (i) modulate what counts as similar, it can (ii) modulate how much similarity and what kind of similarity we are looking for between source and target in deciding which source cases to select. This is why the title of the paper focuses attention on the modulation of *source-case selection*. While related, modulation of similarity and modulation of source-case selection should not be conflated.

5. Argument construction, interpretation, and assessment

Interpreting and assessing Nathan's argument requires an understanding of its logical, rhetorical, narrative, and dialectical dimensions. When Nathan presents his narrative of sheep theft, he does so to elicit a response from David, which consists in both the *statements* David makes and the *emotions* he experiences and expresses about the rich man. Nathan makes use of David's response. Regarding the narrative of sheep theft, it is selected to elicit the emotional response Nathan wants David to have. In his supportive discussion of narrative arguments, Christopher Tindale (2021, p. 116) asks what value is added to argument or the analysis of argument by invoking the category of *narrative arguments*. One possible response that is suggested by Nathan's narrative is that they can elicit an emotional response. It does not follow that this is their only role, but it is certainly one role. In this case, the narrative arguably achieved that effect through a kind of empathetic analogy that helped David understand what it was like to be in the position of the poor man. Achieving empathetic understanding is not generally a concern in, say, analogies in mathematics. However, in arguing about how to treat people, they can become relevant. That might go some way towards helping us understand why we see narrative analogies in arguing about action but not in mathematics. In constructing his argument, Nathan makes use of a

narrative analogy in a dialectical exchange for the purpose of eliciting a response from David that he will then use (i) to persuade David that he has erred and (ii) to modify his affective and motivational states. The selection of the narrative for this dialectical exchange is governed by rhetorical considerations regarding what may or may not be effective in eliciting a dialectical response that will help Nathan to achieve his argumentative goals. With this summary, let us look at the literature proposing schematic reconstructions of analogy with accompanying critical questions for evaluation.

The critical questions that are often proposed for evaluating analogical arguments generally deal with its logical or structural dimensions, such as whether the relevant similarities between source and target are outweighed or defeated by the relevant differences (Walton et al. 2008, chapter 2; van Eemeren et al. 2009, chapter 7; never mind the myriad of textbook treatments that take a similar approach). There is no doubt that the logical/structural dimension is essential to assessing analogical arguments. A common *and legitimate* concern in assessing analogical argument is that the relevant differences between cases may outweigh the relevant similarities, making it a bad argument. In other words, there is concern over whether the cases are *too different*. The possibility that, in some contexts, the cases can be *too similar*—and that the differences can be *helpful*—has been under-explored. In the case of persuading David, an argument from a near-identical source is unlikely to succeed. As discussed above, the source not being directly about adultery or conspiring to kill—*important and morally relevant differences indeed*—is what allows Nathan to get a better hearing than he might otherwise have received. To be sure, there must be relevant similarity for the argument to work (though Nathan never directly articulates it). This paper treats self-indulgent taking as the similarity in question. Arguments about how we ought to act sometimes deal with subject matters that are emotionally charged. Thinking critically about analogical arguments needs to take that into consideration. This does not replace the logical or epistemological assessment of an argument. Rather, it shows the importance of the rhetorical dimension in constructing and assessing an argument. As many who have done logical and

epistemic treatments of analogy have shown, there really is a concern with analogues being too different from one another, and a rhetorical perspective that did not consider such matters would lead to the construction of deeply flawed arguments. The suggestion is not that those who have focused on the logic of analogy are uninterested in rhetoric. Rather, it is that salient differences between analogues can play a role in making one source case preferable to another, and the rhetorical perspective is important to understanding and exploring that phenomenon.

Regarding the structure of analogical arguments, Walton (2012, 2013) has suggested that narrative analogical arguments can be understood using story scripts. He rightly emphasizes the importance of sequences of events. However, the examples he uses focus on very neat one-to-one mappings between source and target. One of the features of Nathan's argument is its use of a one-to-many mapping of relations. As Bartha (2010, chapter 3) has pointed out, being limited to one-to-one mappings was a limit of earlier models of cognitive science approaches to analogy, but more recent work makes use of one-to-many mappings. Philosophical work on analogy also needs to pay more attention to this type of complexity. Above, the rich man stealing the sheep was mapped one-to-many to a sequence of actions and events in DUB₂. Some one-to-many mappings may be acceptable, and some may not. Structure alone will not determine this. To see why, let us start by looking at the simple case of a one-to-one mapping. The cognitive science structure mapping paradigm (e.g., Gentner 1983; Falkenhainer et al. 1989; Gentner and Markman 1997) of understanding analogies maps relations to relations and higher order relations to higher order relations. There is a preference for two-place relations to be mapped to two-place relations, three-place to three-place, and so on. This approach was developed mostly to model scientific and mathematical analogies, but there have been applications to ethics (Dehghani et al. 2008; Blass and Forbus 2015). In the mapping of RPS to DUB₂, the three-place relation of the rich man stealing the poor man's sheep – *R steals P's S* – is mapped to a sequence of relations, the first of which is a five-place relation: *D conspires with J to kill U so D can marry B*. The third relation in the sequence is two-place: *D marries B*. The second relation in the

sequence could be broken down further; its analysis is complex, and I will not dwell on it here. That said, as unusual as it may be to map an n-place relation one-to-many to x-, y-, and z-place relations where the values of x, y, and z are different from n, that is the sort of thing we need to capture here.

A further feature of structure mapping is that transitive verbs are inherently relational. *Jill loves Jack* is a two-place relation just as much as *Jill kills Jack*, i.e., they both have the form xRy. This is *not* to say that we should morally valence them in the same way. ‘Valence’ (and its variants) is used in this way not only in cognitive science but also in philosophy (Ridge and McKeever 2023). It is simply a way of referring to the direction of a weighted consideration. If one consideration contributes to permissibility and another to impermissibility, then they are valenced differently. If we ignore normative valancing and look just at structure, we might generate some very strange analogical mappings indeed, and that is true even with simple one-to-one mappings. We need more than structure. The sort of protected values introduced in Dehghani et. al. (2008) and Blass and Forbus (2015) could be seen as a kind of moral valancing, but what is needed is a kind of variable valence, as we will see in the second to next paragraph

A development in the structure-mapping approach is the multi-constraint approach of Holyoak and Thagard (1995). It maps structure, but it also includes semantic constraints and goals. While these are *very* important additions to structure mapping, they do not capture why the one-to-many mapping from RPS to DUB₂ is appropriate (and why other one-to-many mappings may not be). We are being asked to interpret the stealing of a sheep as similar to *the sequence* of conspiring to have a man killed, having him killed, and marrying his wife. There is a normative valancing of the stealing of the sheep that Nathan wants to transfer to *the sequence* of actions and events in DUB₂, and that matters with respect to what is mapped to what in normative domains. It is difficult to see how that could be done well without some sort of normative valancing. If “semantic” constraints in the Holyoak Thagard approach were expanded to include normative valancing, or if normative valancing were introduced as a separate constraint, it would go a long way to addressing the concern in this paragraph.

Case-based reasoning models in AI, especially in legal domains, do have a normative valancing in the factors or dimensions that are used to compare cases. For the difference between dimensions and factors, see Rissland and Ashley (2002) and Bench-Capon (2017). However, these models tend to have dimensions or factors that work *within a domain* (e.g., think of Ashely’s 1990 work on factors in trade secret law). Comparing the theft of a sheep to a sequence of actions involving (i) conspiracy to kill, (ii) killing, and (iii) marriage involves the comparison of very different actions and subjects. (A human cannot marry a sheep.) An action such as marrying a widow is not something that would usually be valanced in a normatively negative manner, but when placed in the sequence of actions and events that take place in DUB₂, it makes sense for the *sequence* of actions to receive the transfer of negative valence. If David had Uriah killed for completely different reasons and had no interest in Bathsheba (and did not sleep with or marry her) the mapping of sheep theft to David’s conspiracy to kill Uriah would fail because there is no sense in which David self-indulgently “took” Bathsheba. Conspiracy, killing, and marriage each *have their own normative regulations*—if you prefer, you might say they have their own scripts—and Nathan is claiming that when combined in a particular way, they can be seen as a kind of wrongful (grossly self-indulgent) taking, which is normatively governed as well. As Macagno et al. (2017) remind us, what counts as similar often emerges in the context under consideration. Similarity metrics based on structure alone, domain-specific valancing of factors, or weighing similarities and differences (independent of contextual considerations) do not provide the needed flexibility. Simply assigning a positive moral valence to *x marries y* will not do. What is needed is the ability to determine that a combination of actions, each of which does not constitute self-indulgent taking (and some of which may be acceptable in other contexts) can combine to constitute self-indulgent taking that turns out to be terribly reprehensible. More recent developments with large language models are very impressive (Webb et al. 2023), but a proper assessment of those would require a separate paper.

Bartha's model of parity between source and target is (mostly) focused on achieving a particular threshold of plausibility and is not concerned with the sort of contextual considerations (emotion, constitution of the audience, *et cetera*) considered herein. To be fair, Bartha (2010, pp. 7-12) makes a conscious methodological decision to work on simpler examples to lay bare some of the basic features of analogical arguments. It is also possible that other researchers have been choosing to focus on simpler examples for related reasons, which is to say that they might be interested in the considerations discussed herein but have focused on other issues. With analogy, there is much to discuss. That said, at some point, we need to start accounting for the rhetorical richness of analogical arguments. Assessing levels of similarity in a manner that is sensitive to context, and then determining the extent or type of similarity it would be effective to use in a given context are areas where more work is needed, whether in philosophy, cognitive science, or AI.

6. Conclusion

To be sure, there are authors who have noted the importance of difference in analogy (Tindale 2021, pp. 5-6). Indeed, the structure mapping approach in cognitive science assumes there will be differences between the source and target, especially with respect to monadic predicates and the objects mapped. However, it also subscribes to a systematicity principle that seeks to maximize the number of relational mappings between source and target. That amounts to a kind of similarity maximizing with respect to relational mappings. As Bartha (2010, pp. 70, 196-197) has pointed out, that could lead to the rejection of perfectly acceptable analogical arguments. His focus was on analogical arguments in math and science. The approach taken herein is sympathetic to Bartha's rejection of similarity maximizing, but the focus is on arguing about action.

I also stress the importance of considering emotional context. It is not unusual for Bartha (2010, chapters 3, 6, and 9) to draw a rather sharp distinction between the normative needs of an account of analogical argument and the psychological treatments of such

arguments. The distinction in this paper is not as sharp (which is not to deny that there *is* a distinction). An account of how we ought to argue can be informed by psychological or other empirical information without being reduced to it. I assume that what David did was wrong and what the rich man did was wrong—moral norms are at work in those assumptions. I also assume that Nathan’s treatment of RPS as being a kind of self-indulgent taking analogically transfers to the DUB cases—norms of analogical argument are at work there (but were not discussed in any detail). Others cited in this paper have suggested such norms. Except for cautioning against norms that would require global similarity maximization without regard to audience or context, I have not weighed in on the details about the various norms that govern analogy. The focus of the paper is on how emotions can inform the selection of the source case and the implications that has for source-case selection. For Nathan’s attempt to persuade David to be reasonable on moral grounds and on argumentative grounds, it does need to be the case that what David did was wrong, and it does need to be the case that there is an analogy between RPS and the DUB cases. Things become challenging when we realize that there might be many source cases that we could recognize as analogous with the DUB cases because hypothetical cases can be used in the context Nathan was working. The number of logically possible sources that are analogous to a target underdetermines source-case selection in a given context of argument, so how do we select which source case(s) to use in a given context? It is not enough to just come up with an analogy. We want one that will be heard and at least has a chance at persuading in a particular context. In addressing the issue of which source case to use or how to construct one, empirical information about one’s audience and the context of argument becomes relevant, including (but not limited to) information about emotions and how they work.

The role emotion plays in the story of David helps us to see both the challenges posed by emotions and the opportunities they present. That emotion and desires lead David astray is not hard to see. Nathan’s response was to use an analogy that spoke to David in a deep way, one with sufficient similarity to what he had done and a powerful emotional valence that it could shift David’s dox-

astic, emotional, and motivational states. Crucially, the analogy could not be too similar to what he had done for the reasons articulated above. While attempting to change someone's motivational or emotional states may seem manipulative or otherwise problematic, it need not be more problematic than changing someone's doxastic states. Just as there are ways of changing what someone believes or accepts that are logically, epistemically, or ethically reprehensible, there are ways of changing how someone feels that would be problematic for various reasons. Emotional analogies are not always defensible. Moreover, there is good empirical research on some of the challenges we face in using analogies in arguing about action (Braman and Nelson, 1994)—and that is some of the empirical information that can inform responsible argument construction and assessment, not to mention the pedagogy of these endeavours. Empirical research on what contributes to persuasive power—such as using a more familiar source rather than a less familiar one—also can be helpful (Sopory and Dillard 2006).

The approach taken herein is focused on beings who are capable of emotion. If one is arguing with an artificial intelligence (AI) that is not capable of emotion, then emotional analogy is unlikely to be helpful. The further question of whether emotional analogies are only necessary for non-ideal agents is complicated. To start, it is not obvious we should stipulate that an ideal agent lacks emotion. In what sense is that ideal? We might characterize an ideal agent as one that could never be misled by emotion—at least this permits an ideal agent to have emotion. It might be argued that, for such a being, emotional analogies might have no use. Perhaps, but that needs showing. A lot turns on the details of how 'ideal agent' is defined. If we define it as a being that knows everything, then no argument would ever be needed to persuade it or teach it. Imagine we relax the omniscience condition so that an ideal agent still needs to be argued with to learn and to correct some of its errors. To show that emotional analogies would not be helpful to such a being would require showing that such analogies could not help the ideal agent to learn anything worth knowing. The example of David might give the impression that emotional analogies are only useful as corrective measures; in essence, they are to be used when a person has been led astray by their emotions. That *is* how Nathan

is using emotional analogy. It does not follow that this is the only possible use because a non-omniscient rational being with emotions—even one that could not be led astray by emotions—can make (non-emotional) mistakes and learn new things. Might emotional analogies be of use to such a being? I do not know. I suspect the answer might turn on the kinds of resource limitations (including time) we do or do not define into the notion of ideal agency—that is, the ideality might be understood as making the best use of limited resources—but that is beyond the scope of this paper. Suffice it to say that even if some sort of ideal agent has no need for emotional analogies, the rest of us may still find them helpful.

The example studied herein has not been fully explored. Its expository density belies its rhetorical richness and structural complexity. There is more to come in the appendix, but there is still more that needs developing. Notwithstanding the body of important work that has emerged on narrative analogy (Tindale 2021, chapter 6 has a very helpful overview) more could be said about the role narrative plays in some kinds of analogical arguments and what differentiates narrative analogical arguments from other kinds of analogical arguments. As I already observed, we tend *not* to find narrative analogies in mathematics, and Nathan's narrative was central to evoking emotions in his argument. That does not preclude a role for emotion in non-narrative analogies because narrative is not the only source of emotion. For example, mathematicians are sometimes moved by *proofs* they consider beautiful. Thagard (2006, chapters 10, 12, 15, and 16) discusses the role emotion might play in theoretical reasoning. It does not follow that emotional analogies in theoretical reasoning—if good ones there be—would work in the same way as emotional analogies in practical reasoning. As always, there is more that needs exploring.

Appendix

I have argued that context is important in argument interpretation, so a few remarks are in order about the broader context in which Nathan's analogical arguing appears. The text of the interaction between Nathan and David is below. The section highlighted in

green is the analogical arguing. The section highlighted in yellow is doing double duty. It adds to the analogical argument by suggesting the analogies are about David's self-indulgence, hence the reconstruction in the text above. David was given much, and he wanted still more. The remarks in yellow can also be combined with the remarks in red, which make a series of threats and promises and may constitute a different kind of argumentative strategy. Let us have a look.

And the Lord sent Nathan to David, and he came to him and said to him:

“Two men there were in a single town, one was rich and the other poor. The rich man had sheep and cattle, in great abundance. And the poor man had nothing save one little ewe that he had bought. And he nurtured her and raised her with him together with his sons. From his crust she would eat and from his cup she would drink and in his lap she would lie, and she was to him like a daughter. And a wayfarer came to the rich man, and it seemed a pity to him to take from his own sheep and cattle to prepare for the traveler who had come to him, and he took the poor man's ewe and prepared it for the man who had come to him.” And David's anger flared hot against the man, and he said to Nathan, “As the Lord lives, doomed is the man who has done this! And the poor man's ewe he shall pay back fourfold, inasmuch as he has done this thing, and because he had no pity!” And Nathan said to David, “You are the man!” Thus says the Lord God of Israel. ‘It is I who anointed you king over Israel, and it is I Who saved you from the hand of Saul. And I gave you your master's house and your master's wives in your lap, and I gave you the house of Israel and Judah. And if that be too little, I would have given you even as much again. Why did you despise the word of the Lord, to do what is evil in His eyes? Uriah the Hittite you struck down with the sword, and his wife you took for yourself as wife, and him you have killed by the sword of the Ammonites!’ And so now, the sword shall not swerve from your house evermore, seeing as you have despised Me and have taken the wife of Uriah the Hittite to be your wife.’ Thus says the Lord, ‘I am about to raise up evil against you from your own house, and I will take your wives before your eyes and give them to your fellow man, and he shall lie with your wives in the sight of this sun. For you did it in secret but I will do this thing before all Israel and before the sun.’” And Da-

vid said to Nathan, “I have offended against the Lord.” And Nathan said to David, “the Lord has also remitted your offense—you shall not die. But since you surely spurned the Lord in this thing, the son born to you is doomed to die” (2 Samuel 12: 1-14).

It might be tempting to dismiss the remarks in red as a religious browbeating of the first order. To be sure, they are that, but more is going on. Writing centuries after the story of David was first told, Aristotle makes some disparaging comments in the *Rhetoric* about the character traits of those who are well off, but he also remarks that they have an “excellent quality” that comes with being well off: “...piety, and respect for the divine power, in which they believe because of events that are really the result of chance” (Bk II, 1391b1). David was very well off, and the comments in yellow remind him of that and leverage the sensibility that good things happen to good people. The idea is that David was given much, and he repaid this good fortune by “spurning” God. Consequently, his fortunes will change. If virtuous behaviour is taken to lead to good fortune, then a reversal in fortune suggests the behaviour is no longer virtuous. David sees Nathan as a prophet, so his claim that there will be a reversal of fortune for David would be seen as credible by David *given where it comes in this interaction*, so it would be seen by David as adding further support to the view that he behaved viciously. Nathan does not commence his speech with prophecies. He starts with analogical arguing to help David see the error of his ways, but he wants to go further. He wants David to see that he has “spurned” or “offended” God. The conclusions of the analogical arguing can be redeployed to persuade David that he has offended against God. Recall David’s emotional outburst—he said the rich man was “doomed.” Nathan uses this to show David the magnitude of his own offense (which is why he needs to assure David—near the end of the speech—that *he is not* doomed, that is, while God will punish him, God will be more merciful to David than David would have been to the rich man). *After* David has been shown that he has done something wrong and reminded of all that he has been given, Nathan launches into his prophecy of reversal of fortune with divinely sanctioned (ordained?) misfortunes for David, which he would have seen as

evidence that he has offended God. If Nathan had opened with the remarks in red, it is not clear how seriously David would have taken what he had to say. By first using an analogical argument to show him how out of line he was (the remarks in green) and then reminding him of all the things he had been given (the remarks in yellow) the latter remarks (in red) would receive a better hearing.

While my treatment of Nathan's arguing in the body of the paper is favourable, it is because I focus on the remarks in green. To be clear, I do not endorse the kind of arguing that takes place in the comments in red. To the extent that the comments in yellow support the comments in red, they are problematic as well.

Anger is an interesting topic in argument, and one that was treated by Aristotle as well. In the *Politics* (Bk III, 1287) we have a view of anger or passion as an emotion that works against reason. In the *Nicomachean Ethics* (Bk VII, p. 1149), the view of anger is more balanced. He recognizes that anger can be informed by or listen to reason, and while there is such a thing as having an excess of anger, there is also such a thing as not having enough anger. Overall (Bk IV, 1125 through to Bk VII, 1149) anger emerges as a reasonable response to injustice, as an emotion that can be experienced for reasons that are defensible or indefensible. This much is quite helpful as it presents anger as something that, at least to some extent, can be informed and assessed by reason. It was helpful to Nathan that David was angry at the rich man. He knew David would see this as a reasonable response to the injustice committed by the rich man.

In the *Rhetoric* (Bk II, 1378b2) we are told that, "Anger may be defined as a desire accompanied by pain, for conspicuous revenge for a conspicuous slight at the hands of men who have no call to slight oneself or one's friends." Things get complicated when Aristotle suggests (Bk II, 1180a10-15) that we cannot slight ourselves. If anger requires that one be slighted, and one cannot slight oneself, it follows that one cannot be angry at oneself, which is surely false. Still, there is something here that is helpful. If anger is at least sometimes a response to being slighted, then we can see Nathan as using an empathetic analogy to help David understand the slight of the poor man, and this makes David angry at the rich man for the injustices he committed. Nathan then uses a persuasive

analogy by charging David with acting like the rich man, which means David should be angry at *himself* for the injustices *he* committed. This is fascinating. Among other things, it shows that even if it is not possible to slight oneself (which is debatable) the use of analogical reflection—empathic and persuasive—might lead one to become reasonably upset at oneself. Nathan is looking to use anger and pity to help David change his ways, to disrupt his affective and doxastic apathy about what he has done, and to initiate a reconsideration of his deeds and attitude.

Other work in argumentation theory is relevant to a fuller understanding of the kind of argument Nathan mounted. Macagno and Walton (2014) is one example. Michael Gilbert (1994, 2004, 2014) writes of emotional and kisceral modes of argument (among others). Kisceral arguments make appeals to intuitions. Gilbert does not claim that the modes are mutually exclusive, so we could see Uriah as combining the kisceral and emotional modes. Uriah is appealing to (i) David's intuitions about what counts as unacceptably self-indulgent behaviour and (ii) his emotional attitudes toward such behaviour. See the special issue of *Informal Logic* (Blair et al., 2022) that is devoted entirely to Gilbert's work and contains discussion and references to related work. Nathan is appealing to David's intuitions in the context of a dialogue, so work in dialogue theory, such as Erik Krabbe (1992) and Walton and Hyra (2018), is relevant as well.

Acknowledgements: Earlier versions of this paper were presented as part of the Centre for Research in Reasoning Argumentation and Rhetoric speaker series at the University of Windsor (September 2022), at the European Conference on Argumentation (ECA Rome, September 2022), and as an invited talk at the University of Bologna (October 2022). Thanks to everyone who provided feedback. Thanks to the two anonymous reviewers for their insightful comments on an earlier version of this paper. Thanks also go to Anthony Beavers, Martin Koszowy, and Christopher Tindale for their insightful comments as well. A much shorter and simpler version of this paper is scheduled to appear in the proceedings of the ECA 2022 conference. This paper supersedes that one.

References

- Alter, Robert. 2019. *The Hebrew bible: A translation with commentary*, three volumes. New York and London: W. W. Norton and Company.
- Alvargonzález, David. 2020. Proposal of a classification of analogies. *Informal Logic* 40(1): 109-137.
- Barnes, Jonathan (ed.). 1984. *The complete works of Aristotle*, the revised Oxford translation, 2 volumes. Princeton, New Jersey: Princeton University Press.
- Ashley, Kevin. 1990. *Modeling legal argument: Reasoning with cases and hypotheticals*. Cambridge, Mass. and London, UK: MIT Press.
- Bartha. Paul. 2010. *By parallel reasoning: The construction and evaluation of analogical arguments*. Oxford: Oxford University Press.
- Braman, Eileen and Thomas E. Nelson. 1994. Mechanism of motivated reasoning? Analogical perception in discrimination disputes. *American Journal of Political Science* 51(4): 940-956.
- Bench-Capon, Trevor J. M. 2017. HYPO's legacy: Introduction to the virtual special issue. *Artificial Intelligence and Law* 25: 205-250.
- Bex, Floris J. 2011. *Arguments, stories and criminal evidence: A formal hybrid theory*. Dordrecht: Springer.
- Blair, J. Anthony, Christopher Tindale and Katharina Stevens (eds.). 2022. Special issue: Michael Gilbert's multi-modal argumentation. *Informal Logic* 42(3).
- Blass, Joseph and Kenneth Forbus. 2015. Moral decision-making by analogy: Generalizations versus exemplars. In *Proceedings of the twenty-ninth AAAI conference on artificial intelligence*, 501-507. Palo Alto, CA: AAAI Press.
- Damiano, Canale and Giovanni Tuzet. 2014. Analogy and interpretation in legal argumentation. Chapter 13. In *Systematic approaches to argument by analogy*, ed. Henrique Jales Ribeiro, 227-242. Amsterdam: Springer.
- Dehghani, Morteza, Emmett Tomai, Kenneth Forbus and Matthe Klenk. 2008. An integrated reasoning approach to moral decision-making. In *Proceedings of the Twenty-Third AAAI Confer-*

- ence on Artificial Intelligence (AAAI)*, eds. Dieter Fox and Carla P. Gomes, 1280-1286. Chicago, IL: AAAI Press.
- Dunning, David, Ann Leuenberger and David A. Sherman. 1995. A new look at motivated inference: Are self-serving theories of success a product of motivational forces? *Journal of Personality and Social Psychology* 69(1): 58-68.
- Eemeren, Frans van, Bart Garssen and Bert Meuffels. 2009. *Fallacies and judgments of reasonableness: Empirical research concerning the pragma-dialectical discussion rules*. Volume 16 of Argumentation Library. Dordrecht, Heidelberg, London, New York: Springer.
- Falkenhainer, Brian., Kenneth Forbus and Dedre Gentner, D. 1989. The structure mapping engine: algorithm and examples. *Artificial Intelligence* 41(1): 1-63.
- Gentner, Dedre. 1983. Structure-mapping: A theoretical framework for analogy. *Cognitive Science* 7(2): 155-170.
- Gentner, Dedre and Markman, A. B. 1997. Structure mapping in analogy and similarity. *American Psychologist* 52: 45-56.
- Gilbert, Michael A. 1994. Multi-modal argumentation. *Philosophy of the Social Sciences* 24(2): 159-177.
- Gilbert, Michael A. 2004. Emotion, argumentation, and informal logic. *Informal Logic* 24(3): 245-264.
- Gilbert, M. A. 2014. *Arguing with people*. Peterborough, ON: Broadview Press.
- Giovannetti, Dana. 1984. The principle of analogy in Sino-Soviet criminal laws. *Dalhousie Law Journal* 8(2): 382-401.
- Guarini, Marcello, Amy Burchart, Paul Smith, and Andrei Moldovan. 2009. Resources for research on analogy: a multidisciplinary guide. *Informal Logic* 29(2): 84-197.
- Hafner, Carole and Donald H. Berman. 2002. The role of context in case-based legal reasoning: Teleological, temporal and procedural. *Artificial Intelligence and Law* 10(1-3): 19-64.
- Holyoak, Keith J. and Thagard, Paul (1995). *Mental leaps: Analogy in creative thought*. MIT Press.
- Juthe, André. 2005. Argument by Analogy. *Argumentation*, 19(1): 1-27.
- Juthe, André. 2014. A systematic review of classifications of arguments from analogy, chapter 7. In *Systematic approaches*

- to argument by analogy*, ed. Ribeiro, Henrique Jales, 109-127. Amsterdam: Springer.
- Juthe, André. 2020. A defense of analogy inference as sui generis. *Logic and Logical Philosophy* 29: 259-309.
- Krabbe, Erik C. W. 1992. So what? Profiles for relevance criticism in persuasion dialogues. *Argumentation* 6(2): 271-283.
- Kraus, Manfred. 2015. Arguments by analogy (and what we can learn about them from Aristotle). In *Reflections on theoretical issues in argumentation theory*, Argumentation Library 28, eds. F. H. van Eemeren and B. Garssen. Springer.
- Kunda, Ziva. 1990. The case for motivated inference. *Psychological Bulletin* 108: 480-498.
- Kunda, Ziva. 1999. *Social cognition*. Cambridge, Mass: MIT Press.
- Langenbucher, Katja. 1998. Argument by analogy in European law. *Cambridge Law Journal* 57(3): 481-521.
- Lloyd, G. E. R. 1966. *Polarity and analogy*. Cambridge, UK: Cambridge University Press.
- Macagno, Fabrizio and Douglas Walton. 2014. *Emotive language in argumentation*. Cambridge University Press.
- Macagno, Fabrizio, Douglas Walton and Christopher Tindale. 2017. Analogical arguments: Inferential structures and defeasibility conditions. *Argumentation* 31(2): 221-243.
- Ridge, Michael and Sean McKeever. 2023. Moral particularism and moral generalism. In *The Stanford encyclopedia of philosophy* (summer 2023 edition), eds. Edward N. Zalta & Uri Nodelman. forthcoming URL: <https://plato.stanford.edu/archives/sum2023/entries/moral-particularism-generalism/>.
- Mill, John Stuart. 1843/1930. *A system of logic*. London: Longmans-Green.
- Naucke, Wolfgang. 1986. Interpretation and analogy in the criminal law. *Brigham Young University Law Review*: 535-552.
- Olmos, Paula. 2014. Classical fables as argument: Narration and analogy, chapter 11. In *Systematic approaches to argument by analogy*, ed. Ribeiro, Henrique Jales, 189-208. Amsterdam: Springer.
- Pinto, Robert C. 2011. Emotions and reasons. OSSA Conference Archive, Paper 37. URL:

- <<http://scholar.uwindsor.ca/ossaarchive/OSSA9/papersandcommentaries/37>>.
- Pinto, Robert C. and Laura E. Pinto. 2016. The emotional life of reason: Exploring conceptions of objectivity. OSSA Conference Archive, Paper 85. URL: <<https://scholar.uwindsor.ca/ossaarchive/OSSA11/papersandcommentaries/85>>.
- Ribeiro, Henrique Jales (ed.). 2014. *Systematic approaches to argument by analogy*. Springer.
- Rissland, Edwina L. and Keven D. Ashley. 2002. A note on dimensions and factors. *Artificial Intelligence and Law* 10: 65-77.
- Sopory, Pradeep and James Price Dillard. 2006. The persuasive effects of metaphor: A meta-analysis. *Human Communication Research* 28(3): 382-419.
- Stevens, Katharina. 2018. Case-to-case arguments. *Argumentation* 32: 421-455.
- Thagard, Paul. 2006. *Hot thought: Mechanisms and applications of emotional cognition*. MIT Press.
- Thagard, Paul and Cameron Shelley. 2006. Emotional analogies and analogical inference, chapter 3. In *Hot thought: Mechanisms and applications of emotional cognition*, ed. Paul Thagard, 27-50. MIT Press.
- Tindale, Christopher. 2021. *The anthropology of argument: Cultural foundations of rhetoric and reason*. Routledge.
- Walton, Douglas, Chris Reed and Fabrizio Macagno. 2008. *Argumentation schemes*. Cambridge University Press.
- Walton, Douglas. 2010. Similarity, precedent and argument from analogy. *Artificial Intelligence and Law* 18(3): 217-246.
- Walton, Douglas. 2012. Story similarity in arguments from analogy. *Informal Logic* 32(2): 190-221.
- Walton, Douglas. 2013. Argument from analogy in legal rhetoric. *Artificial Intelligence and Law* 21(3): 279-302.
- Walton, Douglas and Curtis Hyra. 2018. Analogical arguments in persuasive and deliberative contexts. *Informal Logic* 38(2): 213-261.
- Webb, Taylor, Keith J. Holyoak, and Hongjing Lu. 2023. Emergent analogical reasoning in large language models. *Nature*

*A Case Study of Contextual and Emotional Modulation of
Source-case Selection in Analogical Arguments 351*

Human Behaviour. <https://doi.org/10.1038/s41562-023-01659-w>