ISSA Proceedings 2014 ~ Practical Reasoning And Multi-Party Deliberation: The Best, The Good Enough And The Necessary

Abstract: In this paper, I elaborate the complex scheme of practical reasoning by proposing its context-independent and context-dependent elements. Further, I focus on its means-goal premise ("We should do X, because X leads to Y, and Y is desirable"). I argue that the practical inference can be licenced in three basic ways: when "X leads to" signifies a necessary means, the best means or the means that is good enough.

Keywords: argumentation schemes, inference licence, optimising, practical reasoning, satisficing

We deliberate not about ends but about what contributes to ends. […] Having set the end [deliberators] consider how and by what means it is to be attained; and if it seems to be produced by several means they consider by which it is most easily and best produced. (Aristotle, Nicomachean Ethics, 1112b12-15)

One's choice is rational only if one did not recognize clearly better reasons for choosing any of one's forgone alternatives. (Schmidtz, 1995, p. 38)

1. *Introduction*
Practical reasoning (PR) is reasoning about what (to intent) to do, as opposed to theoretical reasoning, reasoning about what (to believe) is the case. When expressed in language, PR takes the form of practical argumentation (PA), which has been analysed as a separate argument scheme with its own set of premises, inference rules and critical questions (e.g. Fairclough & Fairclough, 2012; Feteris, 2002; Ihnen Jory, 2012; Walton, 2006; 2007).**[i]**

In this paper, I propose a detailed scheme of complex PA which, while building on previous proposals (esp. Fairclough & Fairclough, 2012), clearly lays out the context-independent and context-dependent elements of PA. I elaborate the scheme by focusing in particular on its causal or means-goal premise ("Let's do X, *because X leads to Y,* and Y is desirable"). This premise is crucial, as it points to

an inference licencing our step from the premises to the conclusion that X is the reasoned action to be taken. I will argue that in principle, when acting rationally, we are licensed to do three things: the best thing, the thing good enough or the necessary thing. Which of the three applies (and whether it obtains) is determined contextually in deliberation with others who might suggest alternative options. In this way, we end up with a multi-party deliberation where different alternative options are advocated by different parties to argumentation.

2. *Practical reasoning as practical argumentation*
Aristotle is credited with providing one of the first methodical accounts of PR and deliberation. It has been argued that he was deliberately vague on the distinction between private (internal) and public (collective) deliberation as chief activities of practical reason, in order to expose "a deep analogy between his conceptions of the two domains" (Dascal, 2005, p. 52). Indeed, the limits of private PR can be overcome or reduced by engaging others: "We call in others to aid us in deliberation on important questions, distrusting ourselves as not being equal to deciding" (*Nicomachean Ethics*, 1112b11).

Perelman & Olbrechts-Tyteca take up these arguments and claim not only simple similarity between public and private deliberation but rather primacy of the former over the latter:
[...] inward deliberation [...] appears to be constructed on the model of deliberation with others. Hence, we must expect to find carried over to this inner deliberation most of the problems associated with the conditions necessary for discussion with others. [...] Accordingly, from our point of view, it is by analyzing argumentation addressed to others that we can best understand self-deliberation, and not vice versa. (1969, pp. 14, 41)

Following this tradition, I take an externalist view, where practical reasoning (PR) is in fact practical argumentation (PA) in both a descriptive and normative sense. Using O'Keefe's (1977) distinction, one can say that PA is a product (argument1) of an argumentative process or activity (argument2) of deliberation. Chief tasks of deliberators such as determining the "most easily and best produced" means (*Nicomachean Ethics*, 1112b15) and "recognizing better reasons" (Schmidtz, 1995, p. 38) are intersubjective and discursive achievements, rather than subjective and mental ones. And such are the evaluative standards – as captured in dialectical procedures for critically testing the reasonableness of practical arguments (Walton, 2006; 2007). This seems an adequate account given that

many intrinsic elements of PA – values, norms, obligations – are collectively constructed and sanctioned, thus making up external reasons for action, often independent from an agent's desires or intentions (Searle, 2001; Fairclough & Fairclough, 2012). Overall, as convincingly argued by Hitchcock (2002), an externalist argumentative approach takes us away from the perils of "solipsistic, egoistic and antisocial" accounts of individual PR.

3. *Detailed scheme of practical argumentation*

The scheme of PA presented in Figure 1 stems from a rich literature on practical argument in philosophy and argumentation theory (see Lewiński, 2014, for a more detailed discussion). In particular, it is derived from a recent comprehensive account of PA by Fairclough and Fairclough (2012). While referring to their work for an in-depth analysis of all the premises constituting the scheme (*Circumstances, Goal, Values*), I will briefly mention four basic advantages of the scheme, focussing further on the last two, and especially on the Means-Goal premise.

Figure 1. The structure of Practical Argumentation (PA)
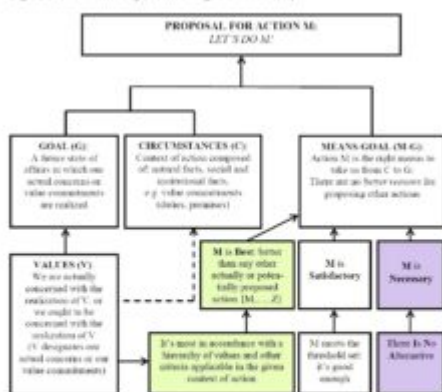
First, the scheme shapes the framework of relevance for (multi-party) deliberation. Typically, different parties argue for the contextual betterness of their proposals for action {M, N, O... Z} (see the "M is Best" box). Their deliberation develops then as an *argumentative polylogue* (Lewiński & Aakhus, 2014) along the lines of possible disagreements over the various elements of the structure (basic premises, inference rules and contextual criteria).

Second, the scheme distinguishes between context-independent and context-

dependent elements of PA. Its basic general structure (as per Fairclough & Fairclough: all the white boxes in Figure 1) remains constant, while contextual criteria for choosing "the right means" (below the diagram) fluctuate. This corresponds to the pragma-dialectical distinction between "the general" and "specific soundness conditions" for various "modes of strategic manoeuvring" (van Eemeren, 2010, Chs. 7, 10).

Third, the scheme clarifies the notion of the means-goal premise.
Fourth, it provides a new account of how to criticize and evaluate PA.
I will now discuss in detail these last two points.

4. *The means-goal premise and inference licence*
Let me start by showing that the simplest formulation of the scheme of PA does not really work. Philosophers and argumentation scholars alike are eager to follow elegant simplicity and claim that "[f]ully spelt out and made explicit, correct [practical] reasoning" (Broome, 2013, p. 260; see Feteris, 2002; Lewiński, 2014) looks more or less like that:
Let's do X! – (Conclusion)
because
X leads to Y. – (Means-Goal premise)
and
Y is our desired goal. – (Goal premise)

That this scheme does not quite capture the rationality of PA can be shown by producing arguments that clearly follow the scheme but are not so clearly rational:
Let's stop feeding our children!
because
This will save us lots of money.
and
We really need to start saving.

Here, from acceptable premises (the Goal of saving money is morally acceptable; the *Means-Goal* relation between stopping feeding children and saving money is technically speaking correct in many contexts) we get a highly objectionable conclusion. That means that there is a problem with the validity of the practical inference drawn here – and in the simple scheme presented above in general. What is missing is the "inference licence" regarding the quality of the link

between the desired goal (premise) and the proposed means of action (conclusion).**[ii]** The Means-Goal inference needs to be thickened beyond asserting simple causality. This, of course, has already been done, but not quite completely. The obvious question to be asked is: "What does it mean that 'X leads to Y'"?

The most common answer is that X is a means *necessary* to get to Y. An often quoted Kantian passage captures the rationale for that: "Who wills the end, wills (so far as reason has a decisive influence on his actions) also the means which are indispensably necessary and in his power" (Kant, *Groundwork of the Metaphysics of Morals*, pp. 80-81; cited in Broome, 2013, p. 159). Indeed, the necessity of means is typically considered the paradigmatic type of inference licence in practical reason (Broome, 2002; 2013; Walton, 2007). It is appealing, most notably, because it makes the practical inference valid by standards of classic deductive logic: the "only if X then Y" conditional expressing necessity (formally: Y → X), allows to construct the inference as *modus ponens*:

Y (*Goal* premise)
Y → X (*Means*-Goal premise)

_____

X (*Conclusion*)

Others, however, object to the idea that reasoning from necessary means provides a paradigm of PR:
If you think about this pattern in terms of real life examples it seems quite out of the question as a general account of practical reason. In general there are lots of means, many of them ridiculous, to achieve any end; and in the rare case where there is only one means, it may be so absurd as to be out of the question altogether. (Searle, 2001, pp. 244-245)

Nevertheless, there surely are cases where arguers build their practical inferences by claiming the necessity of means to be taken, not least in politics where we often hear that "the only way" to fight financial crisis/terrorism/corruption/climate change is *X* (see Fairclough & Fairclough, 2012; Ihnen Jory, 2012). Before I move to discussing other than necessary, and thus more realistic, cases of PA, let me distinguish between three levels of necessity an arguer might appeal to (Lewiński, 2014, p. 5):
a. *conceptual (analytic) necessity* (or at least a priori synthetic) determined by the

very meaning of the formulated end: "If I want to present at ISSA, then I need to be in Amsterdam in early July."

b. *de iure (conventional) necessity* determined by some legal regulations, which may vary across people/countries/regions: "If I want to present at ISSA, then I need to pay the conference fees."
Note that it is not "indispensably necessary" across the board – it does not apply to those who help organizing ISSA, invited speakers, etc.

c. *de facto (practical) necessity* determined for different arguers by contextual factors:
"If I want to present at ISSA, then I need to start saving a year in advance."
vs.
"If I want to present at ISSA, then I need to fill out a travel subsidy form."

Necessity of means, by definition, excludes consideration of alternative options – an issue which seems to be confused in Walton's (2007) account.**[iii]** Whenever we find a certain action necessary to reach our goal, then (recall Kant) we should take this action. Alternatively, if the action is necessary yet objectionable on some other grounds, we should abandon our goal (if the only way to get to Amsterdam is to kill my colleagues competing for travel subsidies, I should rather forget about ISSA).

In most cases, however, our goal "seems to be produced by several means" (*Nicomachean Ethics,* 1112b15). The fact that the goal is "produced" by one means or another, suggests that we consider *sufficient,* rather than necessary, means. This is an equally recognised form of PA (see Walton, 2007). Sufficient means, while closer to life than strict necessities, generate two serious problems for PA. First, argumentation from sufficient means is logically invalid, as it instantiates the fallacious pattern of affirming the consequent: If we implement the sufficient means X, then we "produce" our goal Y. And since we intend to produce Y, we should implement X. Formally:
Y (*Goal premise*)
X → Y (*Means-Goal premise*)

_____

X (*Conclusion*)

Second, whenever we face a set of options consisting of several mutually

exclusive sufficient means, we need to find a way of concluding our reasoning by selecting one of them based on some sort of a criterion. Consider a situation when two colleagues in Lisbon, Portugal, have just been notified their papers were accepted for the ISSA conference (*Circumstances*). Their Goal is to get to Amsterdam the day the conference starts. A sufficient action would be one that takes them from current *Circumstances* to the intended Goal. They consider the following set of such actions:

a. "Let's get in a kayak and start rowing: with good seas we'll make it by July 1."
b. "Let's book a direct KLM flight for € 300, departing from Lisbon on July 1."
c. "Let's book a direct TAP Portugal flight for € 200, departing from Lisbon on".
d. July 1."

Here, option a) would surely count among Searle's "ridiculous" means. As for choosing between b) and c) there is clearly some financial incentive, possibly enforced by the university, to go for option c) – it's considerably cheaper with negligible differences in all other respects (let us assume). If this is so, choosing anything other than c) would be suspicious in terms of rationality of the conclusion. While this is pretty commonsensical, it comes at a certain philosophical cost. According to Searle, it requires, in our PR, "to introduce a fishy-sounding premise, about wanting to do things 'by the best way all things considered'" (2001, p. 247). This premise, on Searle's account, amends PR from sufficient means so that it is not logically fallacious anymore (see 2001, pp. 246-247). Yet, it remains fishy for someone who looks for a "deductive logic of practical reason" for at least two reasons: considerations of bestness are not logical considerations, and, by the way, what are they? ("What is meant by 'the best way,' and what is meant by 'all things considered'?", Searle, 2001, p. 247.)

Searle, however, might be guilty of pushing on PR the "hard" rationality of deductive logic which is inadequate for a form of reasoning driven by the "soft" rationality of merely plausible and thus inherently defeasible inferences (Dascal, 2005). This "soft" rationality requires a dialectical and informal model of argumentation based on the balance of considerations rather than apodictic inference.**[iv]** On such a model the concept of "better reasons" or "the best way" becomes intelligible and remains connected to the requirements of rationality. Following Schmidtz, "one's choice is rational only if one did not recognize clearly better reasons for choosing any of one's forgone alternatives" (1995, p. 38). This, in fact, seems to be the main inference licence in PR, and not only when a set of

alternative (ergo: other than necessary) means is considered (see the *Means-Goal* premise in Figure 1).

As mentioned above in section 2, the task of "recognizing better reasons" is understood here as an intersubjective achievement of arguers engaged in deliberation over what to do, or in PA. On this reading, one is irrational if a clearly better reason was uttered by one of the parties and subsequently dismissed. But why do we need such an inference licence and what does it mean?

First, Schmidtz's formulation is cleverly negative: "no better reasons". This allows to include the necessary means under the inference licence (one cannot argue for a "better necessary" means, contrary to Walton's (2007) conditions), as well as Buridan cases (when facing two equally good options, we are rational by choosing *either* of them). Second, it has direct application to the cases of alternative options discussed here. Despite Searle's worries, there is a long tradition in practical philosophy of investigating what "the best way" might be. Briefly, when reasoning or arguing over the best *Means* to produce our *Goals*, we can licence our inference through one of the two basic strategies (see Byron, 1998, 2004):

A. Going for "the best": *optimising / maximising*. What "the best" is, is typically contextually determined, sometimes loosely (when deciding on the best place to take summer holidays), sometimes in a very strict, administratively defined way (when deciding on the best public procurement offer, or best job or grant application). While the general criteria or parameters for selecting the best course of action can be suggested (see the bottom of Figure 1, also: Hitchcock, 2011; McBurney et al., 2007), their exact set, scope, precision and weight depend on the context and cannot be pre-defined. Therefore, they constitute the fluctuating conditions in the scheme of PA. One can, however, distinguish between simple and subtle optimising:

i. *Simple optimising* applies when deliberators deal with a "static context", that is, when the set of alternative options (means of action) is finite and known (Byron, 1998): we should simply take the best dessert from the list. This requires that the issue is phrased through an *alternative question* ("Do we take tiramisu, crème brûlée, or ice-cream?"; see Biezma & Rawlins, 2012) or a *safe Wh-question* ("Which of desserts on the list do we take?"; see Hamblin, 1970, p. 216).

ii. *Subtle* optimising takes place when we are facing an ever-changing "dynamic context" in which the set of options is open-ended and constantly updated (Byron, 1998), a common situation when selling a house: shall we accept € 100.000 or

wait for a better offer? What better offers can we get? Such risky questions (Hamblin, 1970, p. 216) call for an on-going calculation of costs and benefits under uncertainty (e.g., it's retrospectively irrational to spend € 10.000 and lots of time to get an offer that is € 5.000 better).

B. Going for the "good enough": *satisficing* by setting a threshold which will fulfil our basic criteria: e.g., "any offer equal to or higher than € 100.000 is a good deal and we should accept it." This, of course, is not the "best way all things considered" but it is an important and reasonable way to licence conclusions of our PA under many typical circumstances (assuming, of course, the we set the right threshold, which opens another fascinating theoretical issue lying, for instance, at the very foundation of economics):
i. In dynamic contexts, satisficing lets us "economise" on resource-intensive subtle optimising, which requires constant updates and cost-benefit analysis.
ii. In static contexts, it allows for global optimisation by letting us being somewhat "easy" on less important local results: "Yes, I can jog 3hrs a day for optimal fitness but 30min is good enough in the bigger scheme of things."

In these ways, satisficing also falls under the "no better reasons" principle. In dynamic contexts, we (so far) have no better option than the one which first meets the threshold (the € 120.000 offer is not quite in yet and might never be). In static contexts, while locally merely satisficing, we might be optimising in terms of the bigger plan: one might be better off jogging for 30min only, and then reading a book for 2h30min, than jogging for 3hrs and completely giving up the book.**[v]**

The basic inference licence in PA is then: *there are no better reasons for proposing other courses of action.* Only when strengthened with this principle the "X leads to Y" *Means-Goal* premise is properly licenced and the entire PA generates reasonable, even if expectedly defeasible, results. Since this general principle has three distinct sub-species, there are, then, three principles of reasoned action:
1. doing what's necessary;
2. doing what's best; and
3. doing what's good enough. It is these inference licences that can become criticisable in PA to the effect of undercutting the practical inference.

Before discussing the ways to criticise PA, I briefly mention one more option, which is likely the most common and the least discussed kind of means we

consider in our PA. I have called them *conducive* means in order to convey their presumed worthiness in approaching the desired *Goal*, despite their being neither necessary nor sufficient means (Lewiński, 2014, p. 6). Conducive means should be considered against a disjunction of other alternatives (for they are not necessary) and in conjunction with other means (for they are not sufficient). Examples of such means are plenty. Consider the one analysed by Ihnen Jory (2012, pp. 33-34): "In order to mitigate greenhouse gas emissions we should invest in building more concentrated solar energy plants (CSP)." Clearly, to do so is not a necessary action to mitigate greenhouse gas emissions, as we can instead drive electric cars, build more wind farms, or even nuclear plants, and still achieve the goal. Equally, it is not a sufficient means: alone, more CSPs will not rid us of all the undesired gas emissions. Still, when supported with other premises of the scheme of PA, and as part of a bigger plan, going for more CSPs might be not a bad conclusion at all. It might be more efficient, or otherwise acceptable, than nuclear plants, or might let us achieve a certain level of mitigation we are satisfied with. Shortly, whether because it is an optimal or a satisfactory means, it takes us some way from current *Circumstances* to the *Goal* and is thus presumably reasonable. Following all this, we arrive at the following types of inferences licencing our PA:

a. Doing X is *necessary* to get to Y
b. Doing X is *sufficient* (and *best / good enough* way) to get to Y
c. Doing X is *conducive* (and *best / good enough* way) to get to Y

5. *Criticising practical argumentation*
Among others, Walton stands out as the one who has thoroughly investigated the ways to criticise PA. According to him (Walton, 2006, p. 188; 2007, p. 223), "[t]here are three ways of criticizing practical reasoning:"

1. To attack one of the *premises* of the argumentation scheme.
2. To undercut the argument by asking one of a number of *critical questions* that match the scheme – (corresponding to Pollock's (1995) *undercutters*).
3. To mount a *counter-argument* designed to rebut the original argument from practical reasoning by arguing for an opposite conclusion – (corresponding to Pollock's (1995) *rebuttals*).
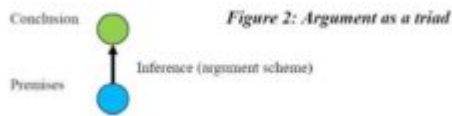
Figure 2: Argument as a triad

This triad is well-justified given the dominant, triadic view of argument (see Figure 2).

One can, then, criticise the premises, the inference or the conclusion itself. That this actually works (read: is a jointly exhaustive and mutually exclusive classification of types of criticism), can be easily illustrated on a classical syllogism:

Some men should work as slaves.
Socrates is a man.
so
Socrates should work as a slave.

To criticise it we can:

1. *Attack* one of the *premises.* Here, the major premise seems vulnerable: "How can you say that some human beings should work as slaves?! It's absolutely unacceptable!"

2. *Undercut* it by pointing out that this is not a valid form of syllogism: "Here's my Venn diagram, it clearly doesn't follow." "You can't reason validly through two particulars."

3. *Rebut* it by defeating the conclusion: "Socrates is a free-born citizen of Athens with full rights, so he can't work as a slave!"

Walton is quite clear that his critical questions regarding given argument schemes fall squarely under the 2nd category: "Critical questions act as undercutters that challenge the inferential link between the premises and the conclusion of a practical inference" (2006, p. 190). When evaluating PA, Walton offers – among other more or less similar formulations – the following list of critical questions (CQs) for the "basic scheme for practical reasoning"(see 2006, pp. 189-190; 2007, p. 234; italics added):

(CQ1) What *other goals* do I have that should be considered that might conflict with G?

(CQ2) What *alternative actions* to my bringing about A that would also bring about G should be considered?

(CQ3) Among bringing about A and these alternative actions, which is arguably *the most efficient* (*the best*)?

(CQ4) What grounds are there for arguing that it is *practically possible for me to*

bring about A?

(CQ5) What *consequences* of my bringing about A should also be taken into account?

In view of the schematic representation of PA proposed in Section 3 (see Figure 1), all Walton's CQs seem to be premise attacks rather than inference *undercutters.* CQs, rather indiscriminately, address both the main context-independent premises of PA (*Goals, Means-Goals*) and its context-dependent criteria (side consequences, practical feasibility). One can thus easily (as Walton sometimes does) add additional CQs, for instance regarding conformance with other goals, opportunity costs or likelihood of success. In any case, we would have moved CQs from category 2 (inference undercutters) to category 1 (premise attacks).

Moreover, in the scheme of PA proposed here, the "better than any other actually or potentially proposed action {M,..., Z}" (see "M is Best" box in Figure 1) sub-premise already contains Pollock's rebuttals. When arguing practically for the bestness of our proposal, we (implicitly or explicitly) claim that "we have a better (contrary) proposal / alternative means / conclusion of PA than you." This does attempt to rebut others' conclusions, but only by challenging one of the premises of their PAs. So category 3 (rebuttals) becomes 1 (premise attacks), just as 2 (undercutters) does.

While there is no room to discuss these issues in satisfactory detail – and thus better justifying the account proposed here – I will argue that on the basis of the analysis in the previous section, one can distinguish only three inference licenses and three corresponding critical questions regarding PA, in their intended function of inference undercutters (see Figure 1):
1. Is taking *necessary* means the right thing? (Maybe we should instead give up the goal, that is, one of my premises?)
2. Is taking the *best means* the right thing? (Shall we really optimise here? Or be somewhat slack and go for a satisficing strategy?)
3. Is *satisficing* the right way to proceed? If so, is the threshold set right? Or are we taking it too easy?

6. *Conclusion*
What I hope to have achieved in this paper is a focused, analytic investigation of the scheme of practical argumentation. This complex scheme moves quite some

distance away from a simple argument built of a premise, an inference and a conclusion. But simplicity does not quite capture the reasonableness of practical argument, as is clear in examples that follow the basic scheme but are faulty. What is missing is one of the three inference rules: necessity, bestness or satisfactory goodness of the actions to be taken in view of reaching our goals. These inferences warrant the step from the exigency to be addressed (*Circumstances*) and the state of affairs to be reached (*Goal*) following the accepted *Values*, to *the action to be taken (Conclusion)*.

A number of issues require further theoretical attention. Are we speaking here of argument schemes as basic units of our argumentation or rather of complex argument structures, combining a number of schemes? Or does a fully fleshed our scheme always become a structure? Further, what are exactly the relations between the content of premises and inference licences? While clearly distinct in formal arguments, are they not confusingly similar in informal schemes? Can we at all clearly distinguish between premise attacks and inference undercutters?

In any case, by pursuing such investigations, we are moving towards seeing practical argumentation not as a standalone logical entity, but as an interactive product of deliberation. This deliberation takes shape of a *polylogue*: a multi-party argumentative activity where relative "rightness" of multiple proposed actions is discussed.

NOTES
i. Note that some argumentation scholars – such as Perelman & Olbrechts-Tyteca (1969, §62) and pragma-dialecticians (Feteris, 2002; Ihnen Jory, 2012) – use instead the term pragmatic argument or argumentation.
ii. The notion of inference-licence is used by Toulmin (2003/1958) interchangeably with inference-warrant (see p. 91). Toulmin traces the origins of the notion to the work of Gilbert Ryle, who also uses the notion of inference-ticket, "which licenses its possessors to move from asserting factual statements to asserting other factual statements" (1949, p. 121).
iii. Of course, arguers can disagree over whether a means X is necessary or not, with the crucial argument being either the lack or the availability of alternatives (see Ihnen Jory, 2012, pp. 32-33). Once this is settled, however, and the "necessary condition scheme" for PR is used, we cannot without contradiction speak of the selection of means or of "the most acceptable necessary condition" (Walton, 2007, p. 216).

iv "[Soft rationality] deals with the vast area of the 'reasonable', which lies between the hard rational and the irrational. The model underlying the idea of soft rationality is that of a balance where reasons in favor and against (a position, a theory, a course of action, etc.) are put in the scales and weighed." (Dascal, 2005, p. 58).

v. For similar reasons, it has been argued (e.g. Byron, 1998) that satisficing is eventually a species of optimisation, as it aims at finding the optimal balance between overall costs (effort, time, other resources) and benefits (satisfaction of preferences and values) of our actions.

References

Aristotle. (1984). Nicomachean ethics. In J. Barnes (Ed.), *The Complete Works of Aristotle,* Vol. II (pp. 1729-1867) (transl. by W. D. Ross & J. O. Urmson). Princeton, NJ: Princeton University Press.

Biezma, M., & Rawlins, K. (2012). Responding to alternative and polar questions. *Linguistics and Philosophy,* 35(5), 361-406.

Broome, J. (2002). Practical reasoning. In J. L. Bermùdez & A. Millar (Eds.), *Reason and Nature: Essays in the Theory of Rationality* (pp. 85-111). Oxford: Oxford University Press.

Broome, J. (2013). *Rationality through reasoning.* Oxford: Blackwell.

Byron, M. (1998). Satisficing and optimality. *Ethics,* 109(1), 67-93.

Byron, M. (Ed.) (2004). *Satisficing and Maximizing: Moral Theorists on Practical Reason.* Cambridge: Cambridge University Press.

Dascal, M. (2005). Debating with myself and debating with others. In P. Barrotta & M. Dascal (Eds.), *Controversies and Subjectivity* (pp. 33-73). Amsterdam: John Benjamins.

Eemeren, F. H. van (2010). *Strategic maneuvering in argumentative discourse: Extending the pragma-dialectical theory of argumentation.* Amsterdam: John Benjamins.

Fairclough, I., & Fairclough, N. (2012). *Political discourse analysis: A method for advanced students.* London: Routledge.

Feteris, E. (2002). A pragma-dialectical approach of the analysis and evaluation of pragmatic argumentation in a legal context. *Argumentation,* 16(3), 349-367.

Hamblin, C. L. (1970). *Fallacies.* London: Methuen.

Hitchcock, D. (2002). Pollock on practical reasoning. *Informal Logic,* 22(3), 247-256.

Hitchcock, D. (2011). Instrumental rationality. In P. McBurney, I. Rahwan & S.

Parsons (Eds.), *Argumentation in Multi-Agent Systems: Lecture Notes in Computer Science* (pp. 1-11). Dordrecht: Springer.

Ihnen Jory, C. (2012). *Pragmatic argumentation in law-making debates: Instruments for the analysis and evaluation of pragmatic argumentation at the second reading of the British Parliament.* (Doctoral dissertation). University of Amsterdam.

Lewiński, M. (2014). Practical reasoning in argumentative polylogues. *Revista Iberoamericana de Argumentación,* 8, 1-20.

Lewiński, M., & Aakhus, M. (2014). Argumentative polylogues in a dialectical framework: A methodological inquiry. *Argumentation,* 28(2), 161-185.

McBurney, P., Hitchcock, D., & Parsons, S. (2007). The eightfold way of deliberation dialogue. *International Journal of Intelligent Systems*, 22(1), 95-132.

O'Keefe, D.J. (1977). Two concepts of argument. *Journal of the American Forensic Association*, 13(3), 121-128.

Perelman, Ch., & Olbrechts-Tyteca, L. (1969). *The new rhetoric: A treatise on argumentation* (transl. by J. Wilkinson & P. Weaver). Notre Dame: University of Notre Dame Press. (Original work published 1958.)

Pollock, J.L. (1995). *Cognitive carpentry: A blueprint for how to build a person.* Cambridge, MA: MIT Press.

Ryle, G. (1949). *The concept of mind.* New York: Hutchinson's University Library.

Schmidtz, D. (1995). *Rational choice and moral agency.* Princeton, NJ: Princeton University Press.

Searle, J. R. (2001). *Rationality in action.* Cambridge, MA: MIT Press.

Toulmin, S. E. (2003). *The uses of argument.* Updated ed. Cambridge: Cambridge University Press. (Original work published 1958.)

Walton, D. (2006). How to make and defend a proposal in a deliberation dialogue. *Artificial Intelligence and Law*, 14(3), 177-239.

Walton, D. (2007). Evaluating practical reasoning. *Synthese,* 157(2), 197-240.