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Incompatibilism and the Logic of Transfer

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Modal arguments for incompatibility of freedom and determinism are typically based on the "transfer principle" for inability to act otherwise (Beta). The principle of agglomerativity (closure under conjunction introduction) is derivable from Beta. The most convincing counterexample to Beta is based on the denial of Agglomeration. The defender of the modal argument has two ways to block counterexamples to Beta: (i) use a notion of inability to act otherwise which is immune to the counterexample to agglomerativity; (ii) replace Beta with a logically stronger principle Beta 2. I argue that the second strategy fails because the strengthened principle and Agglomeration together entail Beta. So this strategy makes sense only if Beta 2 is applied without Agglomeration. But if Beta 2 is used without Agglomeration, then the incompatibilist will undercut the rationale for the premise of his argument. I illustrate this point with the analysis of Warfield (1996) and his use of Beta 2 in the so called direct argument for incompatibilism.

Keywords: transfer of inability, agglomerativity, transfer of non-responsibility, Warfield, direct argument for incompatibilism.

1.

Arguments for incompatibility of freedom and determinism are typically based on "transfer principles" for practical modalities, ability or inability to perform a certain action. According to transfer of inability the consequences of what is beyond one's control (distant past, laws of nature) are themselves beyond one's control. Inability is usually expressed in terms of "having no choice about a certain state of affairs" or "power necessity" of a certain proposition. A proposition *p* is power necessary relative to S when *p* obtains and S does not have it in her power so to act that *p* would not obtain (Fischer 1994: 8). Accordingly, *p* is *not* power necessary relative to S when S has it in her power so to act that *p* would obtain (when S is able to act so as to *ensure* that not-*p*). Let *q* stand for an uncontroversi al proposition of ability of S, say: "the hand of S is raised at t2." Based on the truth of determinism and transfer of inability we get the following argument that S has no choice about the fact that her hand is raised at t_2 - S cannot refrain from raising her hand at t_2.

1 Assume determinism - there is some statement of the condition of the world (*p*) in the past (at t_1, t_1 is much earlier than t_2) which, together with laws of nature entails every fact about the world after that moment. In particular, it entails that S does *q* at t_2.

2 Agent S has at t_2 no choice whether *p* at t_1.

3 Agent S has at t_2 no choice about the fact that *p* leads to *q* at t_2. So, given the principle of transfer (from 2 and 3):

4 Agent S has at t_2 no choice about the fact that *q* is true.

Let 'N' stand for "it is power necessary that … ." Formally, transfer is expressed as the inferential principle:

Beta $\quad Np, N(p \rightarrow q) \vdash Nq$

David Lewis noticed that Beta is a special instance of the closure principle for 'N' (Lewis, 2000: 109-110). If you take a set of premises that logically imply a conclusion and prefix 'N' to each of the premises and to the conclusion then the closure principle says that the prefixed premises imply the prefixed conclusion. In a footnote he refers to Chellas (1980: 114-115), where we see that the closure principle is equivalent, *inter alia*, to the following combination of four principles:

RE From $\vdash A \leftrightarrow B$ infer $\vdash \mathrm{N}A \leftrightarrow \mathrm{N}B$
RN From $\vdash A$ infer $\vdash \mathrm{N}A$
C $\mathrm{N}A \,\&\, \mathrm{N}B \rightarrow \mathrm{N}(A \,\&\, B)$
M $\mathrm{N}(A \,\&\, B) \rightarrow \mathrm{N}A \,\&\, \mathrm{N}B$

I have made a small modification - instead of the principle ' Nt' (where 't' is an arbitrary tautology) I have used RN which is sometimes called rule Alpha. If one of the four principles is not valid for N, then closure is invalid for N. The most convincing counterexample to rule Beta is based on the denial of the principle C, closure under conjunction introduction, sometimes called the "Principle of Agglomeration." The counterexample of this type was proposed first by Slote (1982) and developed systematically by McKay and Johnson (1996). Here is their example:

Suppose I do not toss a fair coin but could have. Let *p* be "the coin does not land heads" and *q* stand for "the coin does not land tails". Then *p* is true and no one has or ever had any choice about *p* (nobody is able to act so as to *ensure* that *not-p*, i.e. heads). *q* is also true and no one has or ever had any choice about *q* (nobody is able to act so as to *ensure* tails). But the conjunction *the coin does not land heads and the coin does not land tails*, although true (because the coin it is not tossed), is certainly not such that S does not have any choice about it. Any random toss will falsify the power necessity of that conjunction.

The defender of the modal argument can block this counterexample to Beta in two ways. Johnson and McKay have themselves proposed notions of power necessity which are immune to their counterexample to agglomerativity. Instead of saying that a proposition *p* is not power necessary relative to S when S is able to act so as to *ensure* that not-*p* one should say that that a proposition *p* is not power necessary relative to S when S is able to act so that not-*p might* be the case. Alternatively, incompatibilists can strengthen the transfer principle used in the argument. In this article I will concentrate on the second strategy. A stronger rule was proposed as a replacement of Beta (introduced by Widerker 1987, defended by Warfield 1996 and Finch and Warfield 1998):

Beta 2 $\mathrm{N}p, \Box(p \rightarrow q) \vdash \mathrm{N}q$

A counterexample to Agglomeration, which is fatal for Beta, need not be a counterexample to Beta 2. In order to see this we have to fix logical relations between the principles. There are two necessity operators ('□' and 'N') in Beta 2. Defenders of rule Beta 2 understand '$\Box(p \rightarrow q)$' in such a way that *q* is a logical consequence of *p* (Warfield 1996: 222, Finch and Warfield 1998: 522, Widerker 2002: 320). If we adopt this reading, then Beta 2 turns out to be equivalent to the following rule (labelled RM by Chellas (1980: 114)):

RM From $\vdash A \rightarrow B$ infer $\vdash \mathrm{N}A \rightarrow \mathrm{N}B$

According to Chellas (Chellas 1980: 122, 4.5.b) the closure principle (Beta generalised) is equivalent, *inter alia*, to the following combination: the principle C (Agglomeration) and rules RM (Beta 2) and RN (Alpha). The following relations can now be proved: (i) Beta and Alpha together entail the validity of Agglomeration; (ii) Beta and Alpha together entail the validity of Beta 2; (iii) Beta 2 and Agglomeration together entail the validity of Beta. Here are the derivations. Proof of Agglomeration from Alpha and Beta (compare McKay and Johnson 1996: 115).

1. N p	Premise
2. N q	Premise
3. □ {p → [q → (p & q)]}	Necessity of a logical truth

4. N {p → [q → (p & q)]}	3, Alpha
5. N [q → (p & q)]	1, 4 Beta
6. N (p & q)	2, 5 Beta

So, a counterexample to Agglomeration is a counterexample to the combination of Alpha and Beta. With Alpha impeccable such a counterexample will falsify Beta.

Proof of Beta 2 from Alpha and Beta (compare O'Connor 2000: 11).

1. N p	Premise
2. □ (p → q)	Premise
3. N (p → q)	2, Alpha
4. N q	1, 3 Beta

So, a counterexample to Beta 2 is a counterexample to the combination of Alpha and Beta. With Alpha impeccable such a counterexample will falsify Beta.

Proof of Beta from Agglomeration and Beta 2[1].

1. N p	Premise
2. N (p → q)	Premise
3. N [p & (p → q)]	1, 2 Agglomeration
4. □ {[p & (p → q)] → q}	Necessity of a logical truth
5. N q	3, 4 Beta 2

So, a counterexample to Beta is a counterexample to the combination of Agglomeration and Beta 2. Slote (1982) argues that Agglomeration, Beta and Beta 2 are invalid for certain epistemic and deontic operators, as well as for the alethic modality of "nonaccidentality." According to Slote rules Beta and Beta 2 also fail for "not having a choice about." But those two rules need not be in the same boat. Carlson (2000: 283-284) claims that if having choice about a truth *p* is understood as: "An agent S has a choice about a truth *p* iff she is able to act so that *p would* be false," then Beta is invalid but Beta 2 is valid. He gives the following example for invalidity of Beta:

> Suppose that coin-tossing is an indeterministic process, and that *S* does not toss a coin, although she could do so. Let *p* = "the coin does not land heads", and let *q* = "the coin is not tossed". Now, *S* cannot act in such a way that *p would* be false, if she were so to act. (If she would toss the coin, it *might* land heads, but it might just as well land tails.) Hence, N*p* is true. Similarly, if *S* would toss the coin, *p → q might* turn out false (it would be false if the coin landed tails), but it might equally well turn out true. Thus, N (*p → q)* is also true. However, N*q* is false, since *S* can ensure the falsity of *q* by tossing the coin.

Carlson was not able to come up with a plausible counterexmaple to Beta 2. Kapitan (2002) also argues that the McKay-Johnson argument does not affect Beta 2.[2] We may conclude that logical relations between the principles by themselves do, indeed, justify the strategy of using stronger Beta 2 instead of Beta in arguments for incompatibilism.

However, this incompatibilistic strategy makes sense *only* if Beta 2 is applied without Agglomeration, since Beta 2 and Agglomeration together entail Beta. But if Beta 2 is used without Agglomeration, then

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[1] Compare O'Connor (2000: 11). Carlson (2000, footnote 12, p. 288) gives credit to Krister Bykvist for this derivation. But Chellas (1980: 122) in his 4.5.b already indicates this result.

[2] Blum (2000) gives an argument that Beta 2, too, implies that 'N' is agglomerative and so not immune to the McKay-Johnson counterexmaple after all. But the argument is not convincing (compare Nelkin and Rickless, 2001).

incompatibilists will undercut the support for the premise of their argument! Incompatibilistic uses of Beta 2 require stronger premise than incompatbilistic uses of the original Beta. Let us recall Beta 2:

Beta 2 $Np, \Box(p \rightarrow q) \vdash Nq$

Let *p* stand for the *conjunction* of a description of a past state of the world and a statement of the basic laws of nature. The thesis of determinism will then yield the truth of the second premise of Beta 2 - the conjunction *p* will logically entail *q*, for all true propositions *q* describing any future state of the universe. Incompatibilists usually argue from unavoidability of the past and unavoidability of the laws of nature to unavoidability of the conjunction of a description of a past state of the world and a statement of laws of nature. But with Agglomeration unavailable, this inference is blocked and the conjunctive premise dangles in the air. And with Agglomeration available, the combination of Beta 2 and Agglomeration is equivalent to that of Beta, so Beta 2 will now stand and fall with Beta. In this case, if one succeeds to establish the incompatibilistic conclusion with the help of Beta 2, one succeeds because Beta alone would have succeeded. So what is the point of using Beta 2?

2.

Let me substantiate these abstract claims with a more detailed analysis of a case where Beta 2 is explicitly used in combination with Agglomeration. Let 'NR *p*' abbreviate '*p* and no one is even partly morally responsible for the fact that *p*.' Given the transfer of non-responsibility and the assumption of determinism, one can generate a so called *direct* argument for incompatibilism (Van Inwagen 1983: 184-88). If determinism is true, then there is some state of the universe *U* in the remote past, which, together with the laws of nature, entail that some agent *S* does *A* today. *S* is not morally responsible for the fact that *U* obtained. And *S* is not morally responsible for the fact that if *U* obtained, then *S* does *A* today. So, by Beta, we get the incompatibilistic conclusion that for any action *A*, *S* is not morally responsible for doing *A* today.

Is the principle of agglomeration valid for NR? Warfield (1996: 218) argues (cautiously, but still) that it is:

> I am less confident (but confident still) that if no one is even partly morally responsible for the conjuncts of a conjunction, then no one is even partly morally responsible for the conjunction. For me to be wrong about this there must be a case in which no one is even partly morally responsible for *p* and no one is even partly responsible for *q* but, despite this, someone is at least partly morally responsible for (*p* & *q*). I can think of no case fitting this description nor can any one with whom I have discussed the matter.

Are there any counterexamples to rule Beta for NR?

Mark Ravizza (1994: 78) offers the following story. At T1, Betty freely detonates explosives as part of a plan to start an avalanche that will destroy an enemy camp; and, in fact, her explosion does succeed in causing an avalanche that is sufficient to destroy the camp at T3. Unbeknown to Betty there is another cause of the camp's destruction by avalanche. At T1, a goat kicks loose a boulder, and it causes an avalanche which is also sufficient to destroy the camp at T3 and which contributes to the actual destruction of the camp at T3. In the story, no one is even partly morally responsible for the goat's kicking the boulder. And no one is even partly morally responsible for the fact that if the goat kicks that boulder at T1, then the camp is destroyed by avalanche at T3. Nonetheless, Betty, according to Ravizza, is at least partly responsible for the camp's being destroyed by avalanche at T3.

Just for the record. Let *p* stand for "the goat kicks the boulder at T1" and *q* for "there is an avalanche that crushes the enemy's base at T3." Then we have:

1 NR *p*

2 NR ($p \rightarrow q$)

But not:

3 NR *q*

Is this counterexample also a counterexample to Beta 2?

Warfield argues that it is *not*. He concedes that the story told by Ravizza is a counterexample to Beta. But for Ravizza's scenario to serve as a counterexample to an inference licensed by Beta 2, the connection between the goat's kicking the boulder at T1 and the camp's being destroyed by avalanche at T3 (conditional premise 2) would have to be a *logical* one. Which it is not (Warfield 1996: 222-223):

> The conditional premise (if the goat kicks the boulder at T1, then the avalanche destroys the camp at T3), though not a proposition anyone is even partly morally responsible for, does not express a relation of logical consequence, and so Ravizza's example fails to apply to my argument [for incompatibilism based on Beta 2].

So, in the case of Betty and the goat we have:

1 NR *p*

and

2 NR ($p \rightarrow q$)

But not:

2' $\Box (p \rightarrow q)$

and the case fails to be a counterexample to Beta 2, because 'NR *q*' is not licensed by Beta 2. But now recall the proof of Beta from Agglomeration and Beta 2:

1 NR *p*	Assumption
2 NR ($p \rightarrow q$)	Assumption
3 NR (p & ($p \rightarrow q$))	1, 2 Agglomeration
4 $\Box$ ((p & ($p \rightarrow q$)) $\rightarrow q$)	Propositional logic
5 NR *q*	3, 4 Beta 2

So we have both "Betty does seem at least partly morally responsible for the avalanche's destroying the enemy's camp at T3" (Warfield 1996: 221) and, given the proof, "It is not the case that Betty is even partly morally responsible for the avalanche's destroying the enemy's camp at T3." How can that be?

There are several ways one might try to avoid the inconsistency, but none of them will be particularly appealing to incompatibilistic defenders of Beta 2. First, one might argue that the Ravizza counterexample to Beta is also a counterexample to Beta 2.[3] No good news for a defender of *superiority* of Beta 2 over Beta.

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[3] This is defended by Stump and Fischer (2000: 53-54). They argue that the principle M:'N(A & B) → NA & NB ' is not valid for non-responsibility. Since M is derivable from Beta 2, a counterexample to M is, indeed, also a counterexample to Beta 2.

Second, one might revise one's opinion about the Ravizza case. Perhaps Betty is not even partly morally responsible for the avalanche's destroying the enemy's camp at T3. This is also difficult to accept. Moreover in this case the original Beta is *valid* after all and the dialectical advantage of using Beta 2 instead of Beta disappears.

One might be suspicious about the use of the logical truth '$\Box ((p \,\&\, (p \rightarrow q)) \rightarrow q)$' in the proof of Beta from Agglomeration and Beta 2. The intended role of the conditional premise in Beta 2 was to cover propositions like '$\Box$ ((Past & Laws) → Future)' which are not necessarily true in virtue of logical constants alone, rather, they are necessarily true in virtue of the definition of determin ism. The proposed amendment would be to restrict the conditional premise in Beta 2 to propositions which are not truth-functually tautologous. In Beta 2, the connection between *p* and *q* must be one of logical necessity but not one of trivial logical necessity.

But note that the proof of Beta from Agglomeration and Beta 2 will follow even if we interpret '$\Box$' in Beta 2 as weaker than logical entailment (not as necessity in virtue of logical constants alone). Given rule Alpha one can always get a conditional '$\Box(p \rightarrow q)$' from '$\vdash (p \rightarrow q)$' and insert a premise of type '$\Box(p \,\&\, (p \rightarrow q)) \rightarrow q$' in establishing the conclusion. Prohibiting this type of premise looks hoplessly *ad hoc*.

Beta 2 is attractive only if a convincing counterexample to Beta does not also count as a counterexample to Beta 2. For this to be the case something must be wrong with the derivation of Beta from Agglomeration and Beta 2 in the case of NR. Perhaps there are cases in which no one is even partly morally responsible for *p* and no one is even partly responsible for *q* but someone is at least partly morally responsible for (*p* & *q*). But this solution is extremely dubious. Agglomeration is intuitively valid in the case of NR, and if not valid in general, one might still defend a move from 'NR *p*' and 'NR ($p \rightarrow q$)' to 'NR ($p \,\&\, (p \rightarrow q)$)' in this *particular* case of Betty and the goat. Without Agglomeration the incompatibilist lacks resources to plausibly defend the premise of her argument!

3.

Beta 2 was proposed as a logical principle which is immune to counterexamples to Beta. The above results indicate that there are no dialectical advantages of using Beta 2 over Beta in arguments for incompatibilism. Given Agglomeration, Beta and Beta 2 are in the same boat. But without Agglomeration the incompatibilist will have great troubles in establishing her conclusion since she will undercut the support for the premise of her argument. Faced with counterexamples to Beta incompatibilists have two options to restore the validity of their argument: use the original principle Beta combined with a modified, stronger notion of power necessity or use the original notion of power necessity combined with a stronger transfer principle. The first option should be preferred. But without a careful analysis of the proposed stronger notion of power necessity this, by itself, is no guarantee for the final victory.

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