supervenience, epistemic. The thesis that, necessarily, whenever something has an epistemic property, E, it has a collection of non-epistemic properties, possession of which entails that it has E. Epistemic properties include *justification*, *rationality*, *reasonableness*, *warrant*, and *knowledge*. Non-epistemic properties include *truth*, *falsity*, *reliably produced*, and *psychologically certain*. Epistemologists tend to agree that an acceptable epistemological theory must respect the supervenience of epistemic on non-epistemic properties.

The supervenience thesis can be understood *ontologically*, in which case it pertains to *properties* (or *truths* or *facts*), or *linguistically*, in which case it applies to *ascriptions*. Those inclined to antirealism about epistemic properties will favor the latter (Klagge 1988). Epistemologists, generally disinclined to anti-realism about epistemic properties, focus on the former.

Supervenience is a relation between classes of properties (or truths, or facts). The A-properties supervene on the B-properties (the "subvenient" or "base" properties) just in case no two things can differ in their A-properties without also differing in some of their B-properties. In short:

**(S)** There cannot be an A-difference without a B-difference.

Supervenience theses vary with respect to what they quantify

over. *Individual* supervenience theses quantify over individuals, *regional* over regions of space-time, and *global* over entire possible worlds. Alternative versions of the thesis also result from different interpretations of the modal force of 'cannot' (nomological, metaphysical, analytic, or logical). A further issue concerns the possible distribution patterns of A- and B-properties. *Weak* supervenience theses restrict patterns only within respective possible worlds (intra-world restriction), whereas *strong* ones restrict them across possible worlds (inter-world restriction). In epistemology, supervenience theses are typically, if not always, individual, strong, and stated in terms of metaphysical necessity.

The supervenience of the A-properties on the B-properties *does not* guarantee that the A-properties "depend on" or otherwise obtain "because of" or "in virtue of" the B-properties. Further argument is needed to establish these more robust metaphysical claims (Grimes 1988; Kim 2002: xviii – xxii). For example, the singleton set whose only member is the property of being self-identical supervenes on the set of color properties, but things are not self-identical because of their color properties.

Epistemic supervenience is the view that,

(**ES**) Necessarily, whenever something has an epistemic property, E, it has a collection of non-epistemic properties, N, possession of which entails that it has E (Van Cleve 1985, pp. 97 – 98; Sosa 1991, pp. 156, 183).

While ES covers all epistemic properties of all possible doxastic atti-

tudes and cognizers, for simplicity we focus on the justification of beliefs. The relevant modality is metaphysical. N might include complex relational properties. Technically, ES is neutral on whether there are any epistemic properties.

Statements of the thesis vary, most conspicuously in that sometimes instead of "non-epistemic" properties, E is said to supervene on "non-normative" or "non-evaluative" or "natural" or "descriptive" properties (compare Goldman 1979, p. 340, Chisholm 1989, pp. 42f, and Sosa 1991, p. 153). Sometimes an author will use two or more of these interchangeably (e.g., Steup 1996, pp. 30 – 43; Lehrer 1997, pp. 64 - 65), but the differences among them are potentially significant. Consider divine command epistemology, according to which it is a necessary truth that a belief is justified if and only if God commands the subject to hold it. Having been commanded by God is neither an epistemic nor an evaluative property, so divine command epistemology entails ES, as well as the version of ES with 'non-evaluative' substituted for 'non-epistemic'. But it is not a natural property in any recognizable sense of 'natural', so divine command epistemology does not entail the version of ES with 'natural' substituted for 'non-epistemic'.

To deny ES is to claim that at least some epistemic properties are *autonomous* (Sosa 1991, pp. 153 - 154) or *independent* of the non-epistemic (Lehrer 1997, p. 64). One could consistently deny the possibility of a satisfactory *analysis* of any epistemic concept in completely non-epistemic terms, yet at the same time endorse ES. Ernest Sosa (1991, pp. 153 - 154) calls this combination of views

pessimism.

Proponents of ES need not deny that epistemic properties also supervene on epistemic properties. Indeed, it would be foolish to deny this further claim, since every set of properties trivially supervenes on itself.

A standard argument in favor of ES proceeds from the observation that the evaluative in general supervenes on the non-evaluative (Alston 1976, p. 170; Kim 1988, p. 310; Sosa 1991, pp. 152, 179, 192):

- 1. All evaluative properties supervene on non-evaluative properties.
- 2. All epistemic properties are evaluative properties.
- 3. Therefore, all epistemic properties supervene on non-evaluative properties.

The conclusion of this argument is stronger than the official statement of ES; it entails ES, but ES does not in turn entail it. Unlike the conclusion of the present argument, ES would not be falsified if it turned out that epistemic properties supervene on *non-epistemically* evaluative properties (e.g., moral properties) that do not in turn supervene on non-evaluative ones.

James Van Cleve (1985, pp. 98 - 99) offers the following argument in favor of epistemic supervenience (substituting "non-epistemic" for "natural").

1. Either the epistemic supervenes on the non-epistemic, or there could be a justified belief with no non-epistemic properties, or there could be a justified belief with some non-epistemic properties but none that entails its epis-

- temic properties.
- 2. There could not be a justified belief with no non-epistemic properties.
- There could not be a justified belief with some non-epistemic properties but none that entails its epistemic properties.
- 4. Therefore, the epistemic supervenes on the non-epistemic. Premise 2 is true because any belief will have some non-epistemic property, e.g., temporal properties. Denying premise 3 would be "absurd" because that would imply "that there could be another belief just like [a paradigmatically justified belief] in all [non-epistemic] respects—directed at the same proposition, caused by similar causes, accompanied by similar experiences, related in the same ways to other beliefs of its subject, and so on—yet not justified." Yet "a difference in epistemic status must surely be traceable to some *further* [non-epistemic] difference." It is unclear how persuasive this defense of premise 3 would be to someone who didn't already share the intuition that ES is true.

Keith Lehrer is the chief opponent of epistemic supervenience, and has offered several arguments against the view. At times Lehrer suggests (1997, p. 70; 1999, p. 1071) that ES fails because we cannot give an account of epistemic properties "without the use of epistemic terms." But this confuses pessimism with the autonomy of epistemic properties (Sosa 2003, p. 27f). However, Lehrer's arguments discussed hereafter do not trade on this confusion.

One of Lehrer's arguments proceeds from the supposed failure

of alethic supervenience (Lehrer 1997, pp. 68f and 73 – 75), along with an element of Lehrer's positive theory of justification, to wit, that (undefeated) justification requires that the subject have true beliefs about what she is trustworthy in accepting. Justification won't supervene on natural properties unless truth does, then, because a *necessary* condition for justification is that the subject have true beliefs about her trustworthiness. However, this fails to acknowledge the possibility that the set of truths about what subjects are trustworthy in accepting could supervene on the subjects' natural properties even if truths in general do not. But Lehrer does deny that truths about trustworthiness supervene on natural or even non-epistemic properties: "There is nothing about me, short of my being trustworthy in what I accept, that necessitates that I am trustworthy in what I accept" (1997, p. 72). Since trustworthiness itself is said to be an epistemic property, this would falsify ES. In response, Van Cleve (1999, pp. 1054f) remarks that if Lehrer is correct, then it is possible for a trustworthy person to "cease being trustworthy" even though nothing about her or her environment changed in nonepistemic respects. According to Van Cleve, however, it is extremely counterintuitive that trustworthiness could "float free in that way ... fluctuating though nothing else fluctuates with it...."

Another of Lehrer's arguments (1999, pp. 1070; 2003, p. 318) begins with the claim that metaphysical necessity and possibility "track consistency": "If the claim that x exemplifies F and not G is consistent, then it is possible that x exemplifies F and not G, and it is not necessarily true that if x exemplifies F, then x exemplifies G"

(2003, 318). Let 'F' predicate any non-epistemic property, or combination thereof, that the supervenience theorist proposes, and 'G' the property *justifiedly believes that he has hands*. The claim that S is F and not G is consistent. So it is metaphysically possible that S is F and not G. Therefore, ES is false. For the argument to succeed, we need a suitable characterization of *consistency*. If consistency just means logical consistency, then consistency does not imply metaphysical possibility: it is logically consistent to say that water is a chemical element, or that I am petting an orca but not a mammal, but neither of these things is metaphysically possible. If consistency means metaphysical possibility, then the argument begs the question.

Lehrer (2003, p. 320) also offers this argument:

- 1. If epistemic properties supervene on natural properties, then epistemic properties are epiphenomenal.
- 2. Epistemic properties are not epiphenomenal.
- 3. Therefore, epistemic properties do not supervene on natural properties.

To say epistemic properties are epiphenomenal is to say that they are causally inefficacious, mere "causal danglers." A similar argument, which Lehrer also embraces, applies to moral properties. Premise 1 is the weak link. From the fact that a property supervenes on natural properties, we cannot conclude that it is epiphenomenal. Paradigmatically causally efficacious properties, such as *having a force of 150 newtons*, supervene on natural properties, since they *are* natural properties.

Earl Conee and Richard Feldman advocate "mentalism," the view that justification "strongly supervenes" on the subject's total mental condition, which entails that "if any two possible individuals are exactly alike mentally, then they are alike justificationally, e.g., the same beliefs are justified for them to the same extent" (2001, p. 56). They argue for mentalism on the grounds that it best explains our intuitions about a wide range of particular cases. They also maintain that mentalism is the only or best way to defend a broadly internalist perspective on justification, given that standard arguments based on a deontological conception of justification have been undermined.

Mentalism pertains solely to justification. It does not state, for instance, that knowledge or warrant supervenes on the mental. ES could be true even if mentalism were false, and vice versa. Epistemic properties might supervene on non-epistemic properties, e.g., contingent reliability relations, despite failing to supervene on the mental, in which case ES would be true and mentalism false. Mentalism would be true and ES false if some of justification's subvenient mental properties were epistemic properties that did not in turn supervene on non-epistemic properties. And even if knowledge failed to supervene on non-epistemic properties, justification might still supervene on non-epistemic mental properties, in which case mentalism would be true and ES false.

## **Bibliography**

- Alston, W. P.: "Two Types of Foundationalism." *Journal of Philoso-*phy, 73 (1976), 165 185.
- Chisholm, R.: *Theory of Knowledge*, 3<sup>rd</sup> ed. (Englewood Cliffs, N.J.: Prentice Hall, 1989).
- Conee, E. and Feldman, R.: 'Internalism Defended', *American Philosophical Quarterly* 38 (2001), 1 18. Reprinted in Conee and Feldman 2004.
- Conee, E. and Feldman, R.: *Evidentialism: Essays in Epistemology* (Oxford: Oxford University Press, 2004).
- Goldman, A. I.: 'What Is Justified Belief?' in Pappas, G. S. (ed.) *Justification and Knowledge* (Dordrecht: D. Reidel, 1979), 1 23. Reprinted in Sosa and Kim 2000, 340 353.
- Grimes, T. R.: 1988. 'The Myth of Supervenience', *Pacific Philosophical Quarterly* 69, 152 160. Reprinted in Kim 2002.
- Kim, J.: 1988. 'What Is 'Naturalized Epistemology'?' *Philosophical Perspectives* 2, *Epistemology* (Atascadero, CA: Ridgeview Publishing Co, 1988). Reprinted in Sosa and Kim 2000, 301 313.
- Kim, J. (ed.): Supervenience (Burlington, V.T.: Ashgate, 2000).
- Klagge, J. C.: 'Supervenience: Ontological and Ascriptive', *Australasian Journal of Philosophy*, 66 (1988), 461 70.

  Reprinted in Kim 2002b, 211 220.
- Lehrer, K.: Self Trust: A Study of Reason, Knowledge, and Autonomy (Oxford: Clarendon Press, 1997.
- Lehrer, K.: 'Reply to Van Cleve', Philosophy and Phenomenological

- Research 59 (1999), 1068 1071.
- Lehrer, K.: 'Reply to Sosa', In Olsson, E. J. (ed.) *The Epistemology* of *Keith Lehrer* (Dordrecht: Kluwer, 2003), 317 320.
- Sosa, E.: *Knowledge in Perspective: Selected Essays In Epistemology* (Cambridge: Cambridge University Press, (1901).
- Sosa, E.: 2003. 'Epistemology: Does It Depend on Independence?' in Olsson, E. J. (ed.) *The Epistemology of Keith Lehrer* (Dordrecht: Kluwer, 2003), 23 30.
- Sosa, E. and Kim, J. (eds): *Epistemology: An Anthology* (Malden, MA: Blackwell, 2000).
- Steup, M.: *An Introduction to Contemporary Epistemology* (Upper Saddle River, NJ: Prentice Hall, 1996).
- Van Cleve, J.: 1979. 'Foundationalism, Epistemic Principles, and the Cartesian Circle', *The Philosophical Review* 88 (1979), 55 91. Reprinted in Sosa and Kim 2000.
- Van Cleve, J.: 'Epistemic Supervenience and the Circle of Belief', *The Monist* 68 (1985).
- Van Cleve, J.: Epistemic Supervenience Revisited', *Philosophy and Phenomenological Research*, v. 59 (1999), 1049 1055.